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379
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<213> Homo sapiens
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Phe Gln Lys Ser Ile Gln Gly Leu Gln Tyr Ile Gln Asn Leu Glu Trp
                            40
Ser Ser Pro Val Thr Glu Ser Trp Leu Cys Cys Arg Thr Gln Pro Lys
                        55
                                            60
Thr Phe Ser Thr Lys Ser Ser Pro Glu Thr Leu Ala Leu Thr Leu Ser
                    70
                                        75
Pro Ser Leu Pro Ser Ala Pro Arg Leu Tyr Leu Val Ser Leu Cys Ala
                                    90
Leu Val Thr Pro Gln Ala Lys Val Ile Pro Cys Gly Gly Leu Ser
                                105
Arg Ala Leu Arg Asp Val Gln Gln His Pro Trp Leu Leu
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<211> 388
<212> DNA
<213> Homo sapiens
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accorgging tgttctgggg tgcctggccg ctgcaccacg ccgcgtggac caacctgcgg
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388
<210> 1042
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<212> PRT
<213> Homo sapiens
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Ala Leu Thr Ile Pro Val Leu Ala Leu Ser Met Ile Pro Ala Leu His
                             40
                                                 45
Phe Pro His Trp Pro Leu Trp Ala Leu Ala Leu Thr Thr Pro Val Val
                         55
Phe Trp Gly Ala Trp Pro Leu His His Ala Ala Trp Thr Asn Leu Arg
                     70
His Gly Ala Ala Ile Met Asp Thr Leu Val Ser Leu Gly Val Leu Thr
                                     90
Ser Tyr Leu Trp Ser Val Trp Met Leu Thr Thr Gly Gly Glu His Leu
Tyr Leu Glu Val Ala Val His Arg His Asp Ala Asp Pro Gly Arg Gln
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Ile
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<212> DNA
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gatgcctacg gcgcgcaatt acgcgacgca ttgttggtgg aaggcatcga ttgccaggcc
180
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240
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gegeeggeea geggeeeget geetgaggat tggtaegeeg ceategatta cetgatteee
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555
<210> 1044
<211> 185
<212> PRT
<213> Homo sapiens
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Thr Gly Glu Thr Leu Ile Gly Gln Ser Phe Ser Thr Val Pro Gly Gly
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Lys Gly Ala Asn Gln Ala Val Ala Ser Ala Arg Leu Gly Ala Glu Val
Ala Met Val Gly Cys Val Gly Thr Asp Ala Tyr Gly Ala Gln Leu Arg
                            40
Asp Ala Leu Leu Val Glu Gly Ile Asp Cys Gln Ala Val Ser Thr Val
Asp Gly Ser Ser Gly Val Ala Leu Ile Val Val Asp Asp Ser Ser Gln
                    70
Asn Ala Ile Val Ile Val Ala Gly Ser Asn Gly Glu Leu Thr Pro Ala
Lys Leu Gln Thr Phe Asp Ser Val Leu Gln Ala Asp Val Ile Val
                                                    110
                                105
Cys Gln Leu Glu Thr Pro Met Asp Thr Val Gly His Ala Pro Lys Arg
                            120
Gly Arg Glu Leu Gly Lys Thr Val Ile Leu Asn Pro Ala Pro Ala Ser
                        135
                                            140
Gly Pro Leu Pro Glu Asp Trp Tyr Ala Ala Ile Asp Tyr Leu Ile Pro
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                                        155
Asn Glu Ser Glu Ala Ser Ala Leu Ser Gly Val Val Asp Ser Leu
                165
                                    170
Asp Ser Ala Lys Val Ala Ala Thr Arg
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<210> 1045
<211> 371
<212> DNA
<213> Homo sapiens
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cgcgccatgc acgattacca cgcaccgccg gcagagcgca tgccaattgg gcaccgaagg
cagaccacca cccaggtgca aagcaacagt ggtagagcgg tcgctcatcg acgaaacgta
cggaagaaga cgaagagacg gagcaggaaa gacctgttat ggaatcacag aaccacatcg
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371
<210> 1046
<211> 123
<212> PRT
<213> Homo sapiens
<400> 1046
Leu Leu Pro Tyr Tyr Arg Arg Gly Asn Leu Gln Asp Met Ile Asn Ala
Asn Leu Phe Asn His Ser Lys Phe Pro Glu Thr His Leu Met Asn Leu
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25
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Phe Leu Gly Val Cys Lys Ala Leu Arg Ala Met His Asp Tyr His Ala
Pro Pro Ala Glu Arg Met Pro Ile Gly His Arg Arg Gln Thr Thr Thr
Gln Val Gln Ser Asn Ser Gly Arg Ala Val Ala His Arg Arg Asn Val
                    70
                                         75
Arg Lys Lys Thr Lys Arg Arg Ser Arg Lys Asp Leu Leu Trp Asn His
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Arg Thr Thr Ser Gly Arg Ala Ala Ser Thr Lys Pro Tyr Ala His Arg
                                 105
Asp Ile Lys Pro Gly Thr Cys Cys Lys Leu Leu
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                             120
<210> 1047
<211> 754
<212> DNA
<213> Homo sapiens
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240
gacccgggcc acttecttga gagcetette aagtttgaca aggacaacat tggagatgtg
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540
ategecacaa tgeaggetaa gtacegggaa tgeattacea agaaggagga getggagetg
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<211> 251
<212> PRT
<213> Homo sapiens
<400> 1048
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Ala Met Gln Arg Pro Pro Pro Gly Val Lys Leu Val Ile Glu Ala Val
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Cys Ile Met Lys Gly Ile Lys Pro Lys Lys Val Pro Gly Glu Lys Pro
                        55
Gly Thr Lys Val Asp Asp Tyr Trp Glu Pro Gly Lys Gly Leu Leu Gln
                    70
Asp Pro Gly His Phe Leu Glu Ser Leu Phe Lys Phe Asp Lys Asp Asn
Ile Gly Asp Val Val Ile Lys Ala Ile Gln Pro Tyr Ile Asp Asn Glu
                                105
Glu Phe Gln Pro Ala Thr Ile Ala Lys Val Ser Lys Gly Cys Pro Phe
        115
                            120
                                                125
Ile Trp Pro Trp Gly Gly Ala Met Pro Lys Tyr Pro Phe Val Ala Lys
                        135
Ala Val Glu Pro Lys Arg Gln Ala Leu Leu Glu Ala Gln Asp Asp Leu
                    150
                                        155
Gly Val Thr Gln Arg Ile Leu Asp Glu Ala Lys Gln Arg Leu Arg Glu
                                    170
Val Glu Asp Gly Ile Ala Thr Met Gln Ala Lys Tyr Arg Glu Cys Ile
                                185
Thr Lys Lys Glu Glu Leu Glu Leu Lys Cys Glu Gln Cys Glu Gln Arg
                            200
Leu Gly His Ala Gly Lys Val Arg Thr Leu Leu Gln Gly Leu Gln
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Ala Gly Pro Ala Gln Thr Gly Ala Arg Lys Asp Gln Gly Ala Gly Gly
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                                        235
Ser Trp Gly Gly Cys Pro Thr Pro Ser Leu Ala
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gccagcttga tttcaagaaa caactagaat aacagttttc tgataagaag tctatagcac
tttatggctt acataatcca gagatagatg ggctgggcat gattcccatt ttctgttggg
gaaaccgact cacagagaag ttaagggaca agtataaagt gatgaaactg tgtactgaac
ctcatgtctc ccagactccc gggtccccgg gctttttctc ggggcggccc cattcacatt
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gcaattcatg gccggggcaa atgctcaccc acagagatat taagcactcc aacactccat

ccaccaggtt gcagccaaag gattcagaag acaatgatca ttccatcagc atgcactatg

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cagctaaaga aaggttttgg catgctctgc tttattgttt cacagaagat aagaaaataa
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 actgcaaagt aacttaag
 558
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 <211> 112
 <212> PRT
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 Asp Lys Tyr Lys Val Met Lys Leu Cys Thr Glu Pro His Val Ser Gln
                                 25
 Thr Pro Gly Ser Pro Gly Phe Phe Ser Gly Arg Pro His Ser His Cys
                             40
                                                 45
 Asn Ser Trp Pro Gly Gln Met Leu Thr His Arg Asp Ile Lys His Ser
                                             60
 Asn Thr Pro Ser Thr Arg Leu Gln Pro Lys Asp Ser Glu Asp Asn Asp
                     70
                                         75
 His Ser Ile Ser Met His Tyr Ala Ala Lys Glu Arg Phe Trp His Ala
 Leu Leu Tyr Cys Phe Thr Glu Asp Lys Lys Ile Asn Cys Lys Val Thr
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 <212> DNA
 <213> Homo sapiens
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ctcaagcgcc tggctgctgt catccgtcac gcacaggctg cacaagcggc ttaaggggag
ggccatgtac aaggtttatg gcgattacca gtcgggcaat tgctacaaga tcaagctgat
.gctgcacctg ctggggcagg aatatcgctg gcacccgggg gacatcctca aggtgacacc
300
gagacccgg aattttt
317
<210> 1052
<211> 57
<212> PRT
<213> Homo sapiens
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Ala Leu Ser Arg Asp Val Ala Phe Met Pro Gly Glu Pro Phe Phe Ala
Glu Pro Glu Arg Asn Pro Gly Asn Leu Arg Leu Asn Phe Ser His Ile
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Ala Pro Glu Arg Leu Asp Glu Gly Leu Lys Arg Leu Ala Ala Val Ile
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Arg His Ala Glm Ala Ala Glm Ala Ala
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                        55
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<211> 318
<212> DNA
<213> Homo sapiens
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gegtgeetgg gaacgegace tgetegageg ttatetgtgg egeetegeeg aagagggtgt
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cgggatette teaetettga ceateggege cggaegettt caaeeggeea tgcaaeegge
ggactennnn ccccncnc
318
<210> 1054
<211> 96
<212> PRT
<213> Homo sapiens
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Met Gly Leu Tyr Asp Trp Gln Ala Val Ala Arg Gly Glu Trp Ala Leu
                5
                                    10
Asp Tyr Ala Tyr Ala Met Ser Val Asn Leu Thr Thr Glu Asn Arg Arg
                                25
Ala Trp Glu Arg Asp Leu Leu Glu Arg Tyr Leu Trp Arg Leu Ala Glu
       35
                            40
Glu Gly Val Ala Asn Pro Pro Ser Phe Glu Gln Ala Trp Leu Arg Tyr
                                            60
Arg Gln Gln Pro Phe His Val Gly Ile Phe Ser Leu Leu Thr Ile Gly
                                        75
                    70
Ala Gly Arg Phe Gln Pro Ala Met Gln Pro Ala Asp Ser Xaa Pro Xaa
                                    90
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<211> 391
<212> DNA
<213> Homo sapiens
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120
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aagaatcatc tetetgetca ggcaceggga gcaaggggca tetgtegete tgcagaaegg
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240
tgccaggggt gaagtccaag gatgggaaaa aggcctccgg ggcagagtcc tgaaatgtca
qaaqtacacc aaaqaggaaa cagcatcacg ttattgctga ggcagggcct cattctgttg
ccaaggctgc agtgcagtgg tgacaccatg g
391
<210> 1056
<211> 83
<212> PRT
<213> Homo sapiens
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                 5
                                    10
Leu Ser Asn Asn Val Met Leu Phe Pro Leu Trp Cys Thr Ser Asp Ile
Ser Gly Leu Cys Pro Gly Gly Leu Phe Pro Ile Leu Gly Leu His Pro
                            40
Trp Gln Phe Ser Leu Pro Ser Gln Val Ser Gly Pro Arg Met Val Phe
                        55
Ile Arg Pro Gly Pro Leu Arg Ser Ala Glu Arg Gln Met Pro Leu Ala
                                        75
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Pro Gly Ala
<210> 1057
<211> 341
<212> DNA
<213> Homo sapiens
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tatcaggcgc tgttcgatgc ggtaccgtcc aaggcgaacg gcatctgcct gtgcacgggt
tegeteggeg tgegeggga gaacgatetg cetgaaatgg cegaacgttt eggeeegegt
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341
<210> 1058
<211> 113
<212> PRT
<213> Homo sapiens
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<400> 1058

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Leu Thr Leu His Pro Asp Asp Pro Pro Arg Pro Leu Phe Gly Leu Pro
Arg Ile Ala Ser Ser Ala Glu Asp Tyr Gln Ala Leu Phe Asp Ala Val
Pro Ser Lys Ala Asn Gly Ile Cys Leu Cys Thr Gly Ser Leu Gly Val
                        55
Arg Ala Glu Asn Asp Leu Pro Glu Met Ala Glu Arg Phe Gly Pro Arg
Ile Ala Phe Ala His Leu Arg Ala Thr Lys Arg Asp Ala Asp Gly Leu
Ser Phe His Glu Ser Asp His Leu Asp Gly Asp Val Asp Met Val Ala
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Cys
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<212> DNA
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120
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gcccgcaatg cgctgctgac cgaggccatc gcccaggaag agcgccttga gaccgcgcag
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360
gtgcgtacgc gt
372
<210> 1060
<211> 124
<212> PRT
<213> Homo sapiens
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Xaa Leu Thr Gly Trp Gln Ile Asn Ile Met Thr Pro Glu Glu Ser Val
                                    10
Asn Arg Arg Glu Val Glu Arg Ser Gly Leu Arg Thr Thr Phe Met Asn
                                25
Lys Leu Asp Val Asp Glu Glu Val Ala Asp Ile Leu Ile Asp Glu Gly
                            40
Phe Thr Gly Ile Glu Glu Ile Ala Tyr Val Pro Met Gln Glu Leu Leu
Glu Ile Glu Ala Phe Asp Glu Asp Thr Ile Asn Glu Leu Arg Ala Arg
```

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70
Ala Arg Asn Ala Leu Leu Thr Glu Ala Ile Ala Gln Glu Glu Arg Leu
                                    90
Glu Thr Ala Gln Asp Leu Leu Glu Leu Glu Gly Val Thr Pro Glu Leu
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                                105
Ala Ala Lys Leu Ala Glu Arg Gln Val Arg Thr Arg
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                            120
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456
<210> 1062
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<212> PRT
<213> Homo sapiens
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Gly Arg Arg Leu His Gly Pro Pro Arg Val Ala Ala Lys Pro Val Phe
Ser Pro Leu Gly Gln Lys Arg His Arg Gly Pro Lys Ser Pro Ser Cys
Pro Asn Pro Pro Pro Thr Ala Arg Ser Gly Cys Gln Ile Gln Cys Ser
                    70
                                        75
Arg Ile Leu Leu Leu Ser Ala Pro Lys His Leu Gln Pro Leu Leu
Gly Leu Gln Lys Gly Phe Leu Glu Gly Ala Lys Gly Thr Phe Tyr Leu
                                105
Ser Tyr Leu Pro Ala Gln Pro Gly Ala Met Glu Ser Arg
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acattttett gatgtettee tteaaattaa tgaeettgga ttacataagg atttetatge
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Leu Lys Ser Ser Leu Leu Pro Gly Met Gln His Ala Val Phe Ser Ser
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Arg Thr Pro Leu Thr Pro Ser Ser Arg Pro Arg Ala Gly Arg Trp His
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Leu Ser Cys Ser Ser Ser Ala Ser Ser Phe Arg Ala Leu Leu Cys Trp
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Thr Ser Arg Leu Leu Ser Arg Ser Leu Cys Ser Val Ala Arg Ser
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Ser Ala Ser Ser Arg Leu Ser Tyr Gln Val Lys Leu Gln Met Ala Leu
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Glu Leu Met Arg Lys Glu Leu Glu Asp Ala Leu Thr Gln Glu Ala Asn
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Val Gly Lys Lys Thr Val Ile Trp Lys Glu Lys Val Glu Met Gln Arg
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Gln Arg Phe Arg Leu Glu Phe Glu Lys His Arg Gly Phe Leu Ala Gln
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Glu Glu Gln Arg Gln Leu Arg Arg Leu Glu Ala Glu Glu Arg Ala Thr
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Ala Val Thr Arg Leu Glu Ala Glu Asn Ile Pro Met Glu Leu Lys Thr
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Asp Val Lys Leu Asp Pro Ala Thr Ala His Pro Ser Leu Leu Leu Thr
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Ala Asp Leu Arg Ser Val Gln Asp Gly Glu Pro Trp Arg Asp Val Pro
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Asn Asn Pro Glu Arg Phe Asp Thr Trp Pro Cys Ile Leu Gly Leu Gln
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Ser Phe Ser Ser Gly Arg His Tyr Trp Glu Val Leu Val Gly Glu Gly
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Ala Glu Trp Gly Leu Gly Val Cys Gln Asp Thr Leu Pro Arg Lys Gly
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Glu Thr Met Pro Ser Pro Glu Asn Gly Val Trp Ala Leu Trp Leu Leu
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Lys Gly Asn Glu Tyr Met Val Leu Ala Ser Pro Ser Val Pro Leu Leu
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Gln Leu Glu Ser Pro Arg Cys Ile Gly Ile Phe Leu Asp Tyr Glu Ala
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Gly Glu Ile Ser Phe Tyr Asn Val Thr Asp Gly Ser Tyr Ile Tyr Thr
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Phe Asn Gln Leu Phe Ser Gly Leu Leu Arg Pro Tyr Phe Phe Ile Cys
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Asp Ala Thr Pro Leu Ile Leu Pro Pro Thr Thr Ile Ala Gly Ser Gly
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240

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Gln Thr Glu Ser His Arg Val Ala Gly Glu Asp Met Leu Val Leu Arg
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Val Ser Ala Asp Ile Glu Gly Asp Trp Thr Met His Val Glu Gly Trp
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1008

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Cys His Val Arg Leu Gly Ala Ser His Gly Gly Asp Leu Arg Tyr His
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Leu Gln Gln Asn Val His Phe Lys Glu Glu Thr Val Lys Leu Phe Ile
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                                         75
Cys Glu Leu Val Met Ala Leu Asp Tyr Leu Gln Asn Gln Arg Ile Ile
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Ala Asp Cys Ala Lys Thr Leu His Leu Val Ala Ala Thr Arg Gly Ala
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Val Ala Ser Pro Thr Leu Ser Asp
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                            40
Thr Ser Thr Ser Trp Lys Cys Pro Thr Pro Arg Pro Pro Pro Gln Trp
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Pro Ser Pro Ser Asp Ala Leu Phe His Pro Glu Phe Thr Tyr Pro Ile
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Phe Gly Glu Ala Glu Ala Ile Tyr Gly Tyr Asn Gly Leu His Met Asn
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Leu Ala Phe Ala Ser Gly Ser Leu Val Pro Ser Leu Glu Ile Thr Tyr
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Arq Ala Lys Asn Thr Thr Thr Ser Ala Lys Val Asp Asp Val Glu Gln
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Ala Leu Arg Gly Val Leu Pro Pro Asp Val Val Thr Pro Ala Glu Leu
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Val Thr Lys Ser Ile Tyr Pro Lys Phe Pro Gln Ala Leu Pro Phe Val
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<211> 757
<212> PRT
<213> Homo sapiens
<400> 1082
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Ile Phe Asn Ser Val Leu Lys Leu Asn Lys His Ile Lys Glu Asn His
Lys Asn Ile Pro Leu Ala Leu Asn Tyr Ile His Asn Gly Lys Lys Ser
                           40
Arg Ala Leu Ser Pro Leu Ser Pro Val Ala Ile Glu Gln Thr Ser Leu
                       55
                                          60
Lys Met Met Gln Ala Val Gly Gly Ala Pro Ala Arg Pro Thr Gly Glu
                   70
Tyr Ile Cys Asn Gln Cys Gly Ala Lys Tyr Thr Ser Leu Asp Ser Phe
```

				85					90					95	
Gln	Thr	His	Leu		Thr	His	Leu	Asp		Val	Leu	Pro	Lys	Leu	Thr
			100	-				105					110		•
Cys	Pro	Gln	Cys	Asn	Lys	Glu	Phe	Pro	Asn	Gln	Glu	Ser	Leu	Leu	Lys
		115					120					125			
His		Thr	Ile	His	Phe		Ile	Thr	Ser	Thr	Tyr	Tyr	Ile	Cys	Glu
	130			_	_	135					140	_			
	Cys	Asp	Lys	Gln	Phe	Thr	Ser	Val	Asp		Leu	Gln	Lys	His	
145	_				150		-1		_	155	_,		_	~1	160
Leu	Asp	Met	His	165	Phe	vaı	Pne	Pne	Arg 170	Cys	Thr	Leu	Cys	175	GIu
Val	Phe	Asp		Lys	Val	Ser	Ile		Leu	His	Leu	Ala		Lys	His
Co.~	λαπ	C1	180	T 110	Wa 1	Tr	λ ~~	185	The se	C	C110	A cm	190	7.00	Dho
261	ASII	195	пуs	гуѕ	Val	lyr	200	Cys	1111	261	Cys	205	Пр	мър	PHE
Arg	Asn	Glu	Thr	Asp	Leu	Gln	Leu	His	Val	Lys	His	Asn	His	Leu	Glu
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	Gln	Gly	Lys	Val	His	Lys	Cys	Ile	Phe	-	Gly	Glu	Ser	Phe	_
225				_	230	_				235	•	_	_	_	240
Thr	Glu	Val	Glu		Gln	Cys	His	Ile		Thr	His	Ser	Lys	-	Tyr
3	0	.	D	245	a	•		5 1	250	.1-	- 1 -	71 -		255	~1
ASN	Cys	гàг	260	cys	Ser	гÀг	Ala	265	HIS	ALA	ire	TIE	270	Leu	GIU
Lys	His	Leu	Arg	Glu	Lys	His	Cys	Val	Phe	Glu	Thr	Lys	Thr	Pro	Asn
		275					280					285			
Cys	Gly 290	Thr	Asn	Gly	Ala	Ser 295	Glu	Gln	Val	Gln	Lys 300	Glu	Glu	Val	Glu
Leu	Gln	Thr	Leu	Leu	Thr	Asn	Ser	Gln	Glu	Ser	His	Asn	Ser	His	Asp
305					310					315					320
Gly	Ser	Glu	Glu	Asp 325	Val	Asp	Thr	Ser	Glu 330	Pro	Met	Tyr	Gly	Cys 335	Asp
Ile	Cvs	Glv	Ala		Tyr	Thr	Met	Glu		Leu	Leu	Gln	Asn		Gln
	- 2		340		-4			345					350		
Leu	Arg	Asp		Asn	Ile	Arg	Pro	Gly	Glu	Ser	Ala	Ile	Val	Lys	Lys
	-	355					360	•				365		-	•
Lys	Ala	Glu	Leu	Ile	Lys	Gly	Asn	Tyr	Lys	Cys	Ser	Val	Cys	Ser	Arg
	370					375					380				
Thr	Phe	Phe	Ser	Glu	Asn	Gly	Leu	Arg	Glu	His	Met	Gln	Thr	His	Leu
385					390					395					400
Gly	Pro	Val	Lys	His	Tyr	Met	Cys	Pro	Ile	Cys	Gly	Glu	Arg	Phe	Pro
_										_				415	
Ser	Leu	Leu	Thr 420	Leu	Thr	Glu	His	Lys 425	Val	Thr	His	Ser	Lys 430		Leu
Asp	Thr	Gly	Asn	Cys	Arg	Ile	Cys	Lys	Met	Pro	Leu	Gln	Ser	Glu	Glu
_		435		-			440	-				445			
Glu	Phe	Leu	Glu	His	Cys	Gln	Met	His	Pro	Asp	Leu	Arg	Asn	Ser	Leu
	450				_	455					460				
Thr	Gly	Phe	Arg	Cys	Val	Val	Cys	Met	Gln	Thr	Val	Thr	Ser	Thr	Leu
465					470					475					480
Glu	Leu	Lys	Ile	His	Gly	Thr	Phe	His	Met	Gln	Lys	Thr	Gly	Asn	Gly
				485					490					495	
Ser	Ala	Val	Gln	Thr	Thr	Gly	Arg		Gln	His	Val	Gln		Leu	Tyr
			500					505		_			510	_	
Lys	Cys	Ala	Ser	Cys	Leu	Lys	Glu	Phe	Arg	Ser	Lys	Gln	Asp	Leu	Val

520

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Lys Leu Asp Ile Asn Gly Leu Pro Tyr Gly Leu Cys Ala Gly Cys Val
                        535
Asn Leu Ser Lys Ser Ala Ser Pro Gly Ile Asn Val Pro Pro Gly Thr
                    550
                                        555
Asn Arg Pro Gly Leu Gly Gln Asn Glu Asn Leu Ser Ala Ile Gly Glu
                565
                                    570
Arg Gln Gly Gly Thr Glu Thr Arg Cys Ser Ser Cys Asn Val Lys
            580
                                585
Phe Glu Ser Glu Ser Glu Leu Gln Asn His Ile Gln Thr Ile His Arg
                            600
Glu Leu Val Pro Asp Ser Asn Ser Thr Gln Leu Lys Thr Pro Gln Val
                        615
                                            620
Ser Pro Met Pro Arg Ile Ser Pro Ser Gln Ser Asp Glu Lys Lys Thr
                    630
                                        635
                                                             640
Tyr Gln Cys Ile Lys Cys Gln Met Val Phe Tyr Asn Glu Trp Asp Ile
Gln Val His Val Ala Asn His Met Ile Asp Glu Gly Leu Asn His Glu
                                665
Cys Lys Leu Cys Ser Gln Thr Phe Asp Ser Pro Ala Lys Leu Gln Cys
                            680
                                                685
His Leu Ile Glu His Ser Phe Glu Gly Met Gly Gly Thr Phe Lys Cys
                        695
                                            700
Pro Val Cys Phe Thr Val Phe Val Gln Ala Asn Lys Leu Gln Gln His
Ile Phe Ser Ala His Gly Gln Glu Asp Lys Ile Tyr Asp Cys Thr Gln
                725
                                    730
Cys Pro Gln Lys Phe Phe Gln Thr Glu Leu Gln Asn His Thr Met
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Thr Gln His Ser Ser
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<211> 516
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<213> Homo sapiens
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agateegaat aacetgeeeg eteeegetga geeegtggaa gaggagaaga agtgaeegat
ccactgaccc cggttctgtc ggccaattgg gatgaagagc gcagttggaa gctgcttaac
tacgagcgac agggcggata caccggcctt cgtaaggctt tgacgatgcc gcctgacgac
gttgtctcgc tggttaagga cgctaacctg cgtggccgtg gtggcgccgg gttccccacc
ggcatgaagt ggtccttcgt gcctaaggac aatcccaacc cgacctacct cgttgtcaac
360
ggcgacgagt ctgagccggg cacgtgcaag gacatgccgc tcatgatggc ctccccgcac
accetegteg agggegteat cattgeetee taegceatea aggeeaagat ggeetteate
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tacatcegeg gtgaggtgct gcacgtcgtc cgacgc
516
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Ala Arg Gly Arg Gly Glu Glu Val Thr Asp Pro Leu Thr Pro Val Leu
Ser Ala Asn Trp Asp Glu Glu Arg Ser Trp Lys Leu Leu Asn Tyr Glu
Arg Gln Gly Gly Tyr Thr Gly Leu Arg Lys Ala Leu Thr Met Pro Pro
Asp Asp Val Val Ser Leu Val Lys Asp Ala Asn Leu Arg Gly Arg Gly
Gly Ala Gly Phe Pro Thr Gly Met Lys Trp Ser Phe Val Pro Lys Asp
                    70
                                         75
Asn Pro Asn Pro Thr Tyr Leu Val Val Asn Gly Asp Glu Ser Glu Pro
                85
                                    90
Gly Thr Cys Lys Asp Met Pro Leu Met Met Ala Ser Pro His Thr Leu
                                105
Val Glu Gly Val Ile Ile Ala Ser Tyr Ala Ile Lys Ala Lys Met Ala
                            120
Phe Ile Tyr Ile Arg Gly Glu Val Leu His Val Val Arg Arg
    130
                        135
                                             140
<210> 1085
<211> 374
<212> DNA
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aaatcgtaga gtgtctctga gctgcctagg gggctgtttg cgatcttgcg gacagtgtct
atatocacaa ggttcagetc cgccaggaga ctgtcgccga tcattttcag gaagttttct
ttgctgcgtt cgtagtcttg gtgcaggtcg aagctgtagt cgcttttgta gatgtcccgg
tagaagaact cgggcagggt gcctttcatg gcttccagga tgacgggttt gctcatcccg
tgcccgctca gaacacccgg gtacaccagg gaagagegga tcatgtcgtc ctcaaggtag
360
ggggcggcga attc
374
<210> 1086
<211> 110
<212> PRT
<213> Homo sapiens
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Met Ile Arg Ser Ser Leu Val Tyr Pro Gly Val Leu Ser Gly His Gly
Met Ser Lys Pro Val Ile Leu Glu Ala Met Lys Gly Thr Leu Pro Glu
Phe Phe Tyr Arg Asp Ile Tyr Lys Ser Asp Tyr Ser Phe Asp Leu His
                            40
Gln Asp Tyr Glu Arg Ser Lys Glu Asn Phe Leu Lys Met Ile Gly Asp
                        55
Ser Leu Leu Ala Glu Leu Asn Leu Val Asp Ile Asp Thr Val Arg Lys
                    70
                                         75
Ile Ala Asn Ser Pro Leu Gly Ser Ser Glu Thr Leu Tyr Asp Phe Glu
                                    90
Arg Met Thr His Met Glu Val Trp Leu Arg Glu Asn Tyr Val
                                105
<210> 1087
<211> 423
<212> DNA
<213> Homo sapiens
<400> 1087
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ggcatccacc cgcacgacct cggccaggtc ctcgacgacc acggcgtgag catccgggtg
nggcaccact gtgcctggcc catccaccgg agtctagggg tgcaatccac cgcccgtgca
tegttetaet tetacaacae ttteeeggaa gtggatgegt tagegtegge ggtgegggee
gcccgggaat ttttcggagt gcattaggat tggtctgaac gtgaaccttg aatccatgta
ccaggaagtc atcctggacc actacaagaa tcccacgcac gcagggttga aggetccctt
tgatgccgaa gtgcaccatg tgaacccttc ctgcqqtqac ganaccgtct ccqqqtqaaq
420
ctt
423
<210> 1088
<211> 88
<212> PRT
<213> Homo sapiens
<400> 1088
Met Thr Ile Val Ala Pro Pro Pro Pro Thr Ala Gly Ala Ala Ile Ser
Phe Leu Val Asp Gly Ile His Pro His Asp Leu Gly Gln Val Leu Asp
Asp His Gly Val Ser Ile Arg Val Xaa His His Cys Ala Trp Pro Ile
                            40
His Arg Ser Leu Gly Val Gln Ser Thr Ala Arg Ala Ser Phe Tyr Phe
                        55
```

Tyr Asn Thr Phe Pro Glu Val Asp Ala Leu Ala Ser Ala Val Arg Ala

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65
                    70
                                        75
                                                             80
Ala Arg Glu Phe Phe Gly Val His
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<212> DNA
<213> Homo sapiens
<400> 1089
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caggagatgg cctgtgagga taaaaccaag ggagggagag taggacagag gcagtacata
agagtggtaa gaatggggct cggggaagaa gccttacccc ttttcttctt taatttggcg
aaaggacttt tgggccaagg tcaccctagc cttctcttgg gggcctcaat tttccttcat
tetgtaaaaa atgggggggt aatteagaag tacceteett attgteaggg ttttggggaa
gggagtaaaa agaaattggc ttgggaaaat acttaataca gggcctgggc atgtaacaaa
tattcacaaa atgctagcag ttatcaccac agtgggagcc acagggagct ctgaggataa
gragggatgt rgagggatgg garagaactt gattgaaggr agaragaret craaattett
gactcagaca gaatgatcac tgatccagcg agacgtcagg atcgagagga gtgtagcaag
gagtcaggag ggtgggcctg cgccagtgtc gccccgactc tgttcagtaa catgaaggca
600
aacacagaag ggcatgtgcg gagacacacg tgatcacgct agtgatgcag aggcagaccc
agacaaaaga ccgagacagg agctaggcag acacacagac agagacagcc ccgcggagtc
atgtagacag ggataatgac aggaacgcgt
750
<210> 1090
<211> 103
<212> PRT
<213> Homo sapiens
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Met Val Thr Trp Val Glu Leu Lys Gly Arg Leu Thr Gln Glu Met Ala
Cys Glu Asp Lys Thr Lys Gly Gly Arg Val Gly Gln Arg Gln Tyr Ile
Arg Val Val Arg Met Gly Leu Gly Glu Glu Ala Leu Pro Leu Phe Phe
Phe Asn Leu Ala Lys Gly Leu Leu Gly Gln Gly His Pro Ser Leu Leu
Leu Gly Ala Ser Ile Phe Leu His Ser Val Lys Asn Gly Gly Val Ile
                    70
Gln Lys Tyr Pro Pro Tyr Cys Gln Gly Phe Gly Glu Gly Ser Lys Lys
```

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90
                                                        95
                85
Lys Leu Ala Trp Glu Asn Thr
            100
<210> 1091
<211> 438
<212> DNA
<213> Homo sapiens
<400> 1091
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gegattatta eggettatat gaacgaagtg tatttggete aagtaggtaa tgaggggett
120
catggctttg ccgaggcgag tcagcacttt tttggacgac ctttaaaaaga acttaatatc
180
gacgagtttg ccttgttagt aggaatggtg aaagggcctt ctatttataa tcctgaacga
caccctaaac gtgctttatc acgcagaaat acggtattag caattttaaa aagccaagat
cgtttaaccg agtcggatta taatatttta cggaaacaac ccattcgctt ggcagataaa
caccaagaac gctcagtata tggggattat ttagatctag tctctatgca gttatcgcga
420
gactttgatc gctgcatg
438
<210> 1092
<211> 146
<212> PRT
<213> Homo sapiens
<400> 1092
Thr Arg Lys Leu Thr Glu Val Val Met Ser Leu Leu Glu Tyr His
                                    10
Tyr Ser Lys Ser Ala Ile Ile Thr Ala Tyr Met Asn Glu Val Tyr Leu
                                25
Ala Gln Val Gly Asn Glu Gly Leu His Gly Phe Ala Glu Ala Ser Gln
                            40
His Phe Phe Gly Arg Pro Leu Lys Glu Leu Asn Ile Asp Glu Phe Ala
Leu Leu Val Gly Met Val Lys Gly Pro Ser Ile Tyr Asn Pro Glu Arg
                    70
                                        75
His Pro Lys Arg Ala Leu Ser Arg Arg Asn Thr Val Leu Ala Ile Leu
Lys Ser Gln Asp Arg Leu Thr Glu Ser Asp Tyr Asn Ile Leu Arg Lys
Gln Pro Ile Arg Leu Ala Asp Lys His Gln Glu Arg Ser Val Tyr Gly
                           120
Asp Tyr Leu Asp Leu Val Ser Met Gln Leu Ser Arg Asp Phe Asp Arg
   130
                       135
                                           140
Cys Met
145
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<211> 351
<212> DNA
<213> Homo sapiens
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ggtcagctgc tgaacgacga gcagtacttc gaagcgctgg aagagttcgg cgacgatttc
gatgecegea tgggtgeega agetgteegt gaactgetge aegetatega eetggaacae
gagattggcc gtctgcgtga acaaattccg caaaccaact ccgaaaccaa gatcaagaag
ctgtccaagc gtctgaagtt gatggaagcc ttccagggtt ccggcaactt gccagagtgg
atggtgctga ccgttctgcc ggttctgccg ccagatctgc gtccgctggt a
351
<210> 1094
<211> 117
<212> PRT
<213> Homo sapiens
<400> 1094
Arg Val Leu Tyr Phe Glu Ser Tyr Val Val Ile Asp Pro Gly Met Thr
1
Thr Leu Glu Lys Gly Gln Leu Leu Asn Asp Glu Gln Tyr Phe Glu Ala
            20
Leu Glu Glu Phe Gly Asp Asp Phe Asp Ala Arg Met Gly Ala Glu Ala
Val Arg Glu Leu Leu His Ala Ile Asp Leu Glu His Glu Ile Gly Arg
                        55
Leu Arg Glu Gln Ile Pro Gln Thr Asn Ser Glu Thr Lys Ile Lys Lys
                                        75
                    70
Leu Ser Lys Arg Leu Lys Leu Met Glu Ala Phe Gln Gly Ser Gly Asn
                85
                                    90
Leu Pro Glu Trp Met Val Leu Thr Val Leu Pro Val Leu Pro Pro Asp
                                105
Leu Arg Pro Leu Val
        115
<210> 1095
<211> 619
<212> DNA
<213> Homo sapiens
<400> 1095
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gagcacctgg agaaggagct gtccgagaag agcgggcagc tgcggcaggg cagcgcccag
agccagegge agateegegg ggagategae ageetgegee aggagaagga eteactgete
180
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aagcagcgcc tggagatcga cggcaagctg aggcagggga gtctgctgtc ccccgaggag
gagcggacgc tgttccagtt ggatgaggcc atcgaggccc tggatgctgc cattgagtat
aagaatgagg ccatcacatg ccgccagcgg gtgcttcggg cctcagcctc gttgctgtcc
cagtgcgaga tgaacctcat ggccaagctc agctacctct catcctcaga gaccagagcc
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ttttacttgt gaacctaag
619
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Ser Ser Arg Leu Glu His Leu Glu Lys Glu Leu Ser Glu Lys Ser Gly
                                25
Gln Leu Arg Gln Gly Ser Ala Gln Ser Gln Arg Gln Ile Arg Gly Glu
Ile Asp Ser Leu Arg Gln Glu Lys Asp Ser Leu Leu Lys Gln Arg Leu
Glu Ile Asp Gly Lys Leu Arg Gln Gly Ser Leu Leu Ser Pro Glu Glu
                    70
Glu Arg Thr Leu Phe Gln Leu Asp Glu Ala Ile Glu Ala Leu Asp Ala
                85
                                    90
Ala Ile Glu Tyr Lys Asn Glu Ala Ile Thr Cys Arg Gln Arg Val Leu
                                105
Arg Ala Ser Ala Ser Leu Leu Ser Gln Cys Glu Met Asn Leu Met Ala
                            120
Lys Leu Ser Tyr Leu Ser Ser Ser Glu Thr Arg Ala Leu Leu Cys Lys
                        135
                                            140
Tyr Phe Asp Lys Val Gly Gln Gln Pro Met Ala Pro Pro Ala Pro Pro
                                        155
                    150
His Gly Thr Cys Gly Glu Val Ser His Gly Ser Cys Ser Ser Gly Tyr
                                    170
Pro Val Ser Ser Gln Thr Gly Gly Gln Asn Gln Asp Gln Leu Ile Cys
           180
Arg Ala Ala
       195
<210>,1097
<211> 5108
<212> DNA
<213> Homo sapiens
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gacaaagagt 180	tcacttccca	tgagatcaaa	caccctcaca	gttcctgtgc	tttcggcata
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acactgatct 360	tgaacagcag	ccaaaagctt	tccattgctt	gcaagtacca	aatgccagtt
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ccagatgtat 480	tggcgtaaaa	ataataaacg	atctcgaatt	gctttcgtga	tgataaagga
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gaccaacaag 600	tcatagagaa	tegteteete	gactcctccg	ctgcctgagt	cctcggcgaa
catggeggee 660	cccgagtcag	ggccggcttt	gagtccaggc	actgcagagg	cctagaggca
accaaaaaca 720	tggtgcatcc	tttatcatca	cgaaagcaat	tcgagatcgt	ttattattt
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tatacctgtg 900	aacgaaatga	tcaactctgt	ctttgctatg	acctactaga	atgtctgcca
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caagacatgt 1200	taactatgca	gcagaatgta	tacacatgtc	tagattctga	tgcctgctat
gagatattta 1260	cagaaagcct	tetgtgetet	agtcgccttg	aaaacatcca	cctggctgga
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1980			aatttccaga		
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2100			accactgcta		
2160			caggccgtca		
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2280			caagggtgtc		
2340			gggacctatg		
2400			actggaaaat		
2460			ttgcaactag		
2520			gccttaccac		
2580			tctctccagc		
2640			ttcagggaca		
2700			accaggcatg		•
2760			aagcagttac		
2820			ggccttcgga		
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2940			gcacaacgtt		
3000			acggacagtg		
3060			gagactttga		
3120			actattggtg		
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aaaccagaaa 3240	cccacattcg	actgctgaag	aagtttaagg	ttgttgcatc	aggtcttaat
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atgctttccc 3420	caagetetet	gtacaccatc	tggttacaga	agttgttctg	gactggagac
cctcatctca 3480	ttaaacaagt	cccaggetet	tcaccggagt	ggcttcatgc	ctatgatgtc
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4440	ggccacctat		•		
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Gly Arg Lys Gln Pro Pro Val Ser Glu Ser His Trp Arg Thr Leu Leu
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Gln Asp Met Leu Thr Met Gln Gln Asn Val Tyr Thr Cys Leu Asp Ser
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Asp Ala Cys Tyr Glu Ile Phe Thr Glu Ser Leu Leu Cys Ser Ser Arg
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Leu Glu Asn Ile His Leu Ala Gly Gln Met Met His Cys Ser Ala Cys
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Ser Glu Asn Pro Pro Ala Gly Ile Ala His Lys Gly Lys Pro His Tyr
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Arg Val Ser Tyr Glu Lys Ser Ile Asp Leu Val Leu Ala Ala Ser Arg
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                                           140
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Glu Glu Leu Asp Leu Ile Gln Ala Val Gly Cys Leu Glu Glu Phe Gly
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Val Lys Ile Leu Pro Leu Gln Val Arg Leu Cys Pro Asp Arg Ile Ser
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Leu Ile Lys Glu Cys Ile Ser Gln Ser Pro Thr Cys Tyr Lys Gln Ser
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Thr Lys Leu Leu Gly Leu Ala Glu Leu Leu Arg Val Ala Gly Glu Asn
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Pro Glu Glu Arg Arg Gly Gln Val Leu Ile Leu Leu Val Glu Gln Ala
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Met Ala Thr Gly Tyr Pro Lys Ser Trp Asp Val Cys Ser Gln Leu Gly
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Phe		Leu	Thr	His	Cys	Pro	Pro	Ser	Ser	Ile		Leu	Leu	Leu	Ala
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Gln	Ile	His	His	Glu	Gly	Gly	Glu	Asn	Ile	Ser	Ala	Ser	Pro	Leu	Thr
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Gln	Trp	Trp	Lys	-	Ser	Leu	Thr	Tyr		Arg	Pro	Leu	Gln	_	Gln
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Lys	Cys	GIY	-	Ala	Tyr	Gln	тте	_	Thr	Thr	AIA	Asn		Asp	Leu
G1	T	~1 m	420	O	*** -	Dwa	Dha	425	C1	C	**- 1	T1.	430	200	Dwa
GIU	Lys	435	GIA	Cys	HIS	Pro	440	ıyr	GIU	Ser	val	445	ser	ASII	PIO
Dhe	Val		Glu	Ser	Glu	Gly		Tur	Δen	Thr	Tur		ніс	Val	Pro
FIIC	450	AIA	Gru	Ser	Giu	455	1111	1 7 7	АЗР	1111	460	GIII	1113	Val	110
Val		Ser	Phe	Ala	Glu	Val	Leu	Leu	Ara	Thr		Lvs	Leu	Ala	Glu
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545		·	N	71-	550	Pro	T	C1	T 011	555	T	Mot	17-1	The	560
PIO	Leu	TYL	Arg	565	Asp	PIO	ьys	GIU	570	116	гу	Mec	vai	575	AIG
Hie	Va l	Thr	Ara		Glu	His	Glu	Δla		Pro	Glu	Asn	T.em		Ser
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Pro	Phe		Asp	Ser	Gly	Leu		Thr	Leu	Glu	Ile		Asn	Arg	Ala
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Gln	ASD	Leu	His	Leu	Pne	Glu	Thr	Leu	Lys	ınr	Asp	Pro	GIU	Ala	Fue
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172 -	690					695 Tyr			D~-		700				7.00

_															
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Thr	Asp	Glu	Asn	Met	Ser	Pro	Leu	Glu	Ala	Leu	Glu	Pro	Val	Leu	Ser
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D1	•	835			_		840					845	_		
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The	850	C	D	T =		855		•	•		860	~ 1		_	_
865	Pne	Ser	Pro	Lys		vai	ınr	ьуs	Leu	Ser	vaı	GIU	Ala	Arg	-
	Mot	The	7 ~~	T	870	T1.	T	mb	17-1	875	***	DL.	#1 -	~1	880
GIU	MEL	1111	Arg	885	ALG	116	Lys	Int		Lys	HIS	Pne	TTE		rys
Pro	Δτα	Live	220		Sa-	G1.1	7 00	C1	890	Gln	C1	71 ~	T	895	Com.
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Asp	Pro	Leu	Lys	Val	Leu	Glu	Gly	Val	Val	Ala	Ala	Val	His	Thr	Ser
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Val	Asp	Lys	Gly	Glu	Glu	Leu	Val	Ser	Pro	Ġlu	Asp	Leu	Leu	Glu	Trp
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Leu	Arg	Pro	Phe	Cys	Ala	Asp	Asp	Ala	Trp	Pro	Val	Arg	Pro	Arg	Ile
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Arg	Tyr	Cys	Leu	Phe	Met	Glu	Leu	Leu	Glu	Ser	Ser	His	His	Glu	Ala
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1145 Ser Glu Tyr Val Ile Thr Asn Asn Pro Trp Val Arg Leu Ala Thr Val

1140

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                                            1180
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                                       1195
Ala Glu Gly Val Lys Glu Leu Cys Leu Leu Leu Leu Asn Gln Ser Leu
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Leu Leu Pro Ser Leu Lys Leu Leu Leu Glu Ser Arg Asp Glu His Leu
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                                1225
                                                    1230
His Glu Met Ala Leu Glu Gln Ile Thr Ala Val Thr Thr Val Asn Asp
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                                                1245
Ser Asn Cys Asp Gln Glu Leu Leu Ser Leu Leu Leu Asp Ala Lys Leu
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                                           1260
Leu Val Lys Cys Val Ser Thr Pro Phe Tyr Pro Arg Ile Val Asp His
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                                       1275
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                       •
                                   1290
Arg His Leu Arg Glu Ala Gly His Glu Ala Glu Ala Gly Ser Leu Leu
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His Glu Gly Glu His Leu Leu Thr Leu Asp Asp Thr Asp Arg Thr Leu
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Asp Pro Asp Asp Leu Val Ile Ala Asp Asp Ser Gly Ala Ile Gly Leu
Ala Gly Val Met Gly Gly Ala Ala Thr Glu Val Thr Ala Glu Thr Thr
Ser Ile Ile Leu Glu Gly Ala His Phe Asp Pro Met Thr Gly Ala Arg
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90

110

Ala Tyr Arg Arg His Lys Leu Gly Ser Glu Ala Ser Arg Arg Phe Glu

105

85

100

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Arg Gly Val Asp Pro Ile Cys Ala His Thr Ala Ala Val Arg Ala Ala
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                                                125
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Glu Leu Leu Ala Gln Tyr Gly Gly Ala Thr Val Gly Glu Pro Thr Val
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Val Gly Glu Val Pro Glu Met Pro Arg Gln Thr Ile Asn Ala Asp Leu
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Pro Asn Arg Ile Leu Gly Thr Lys Val Pro Thr Glu Glu Val Ile Glu
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Ile Leu Thr Arg
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tegegaceca ggtgatettt eeeteggeat agattgaegt ggeatteteg teggagtgaa
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aaccettece gaagataace gecaaggeet ggeacacett etgetgeace catteegget
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                                25
Ser Pro Leu Tyr Trp Val Gly Ser Gly Gly Glu Thr His Ala Asp Lys
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Gly Arg Ser Gly Cys Arg Arg Ala Gly Ile His Arg Asn Ser Pro Tyr
Cys Gly Tyr Val His Gln Cys Gly Gly Gly Arg Arg Gln Ala Gly Met
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Gly Ala Ala Glu Gly Val Pro Gly Leu Gly Gly Tyr Leu Arg Glu Gly
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Ser Ser Gln Pro Ser Glu Leu Gly Gly Arg Gln Ser Trp Asn Leu Thr
Ala Gly Cys Val Ser Glu Asp Met Cys Ser Pro Asp Pro Cys Phe Asn
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Gly Gly Thr Cys Leu Val Thr Trp Asn Asp Phe His Cys Thr Cys Pro
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Ala Asn Phe Thr Gly Pro Thr Cys Ala Gln Gln Leu Trp Cys Pro Gly
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Gln Pro Cys Leu Pro Pro Ala Thr Cys Glu Glu Val Pro Asp Gly Phe
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Asp Ala Leu Arg His Ala Gln Lys Met Glu Ala Gly Gly Gln Leu Thr
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Gly Gly Ile Ala His Asp Phe Asn Asn Met Leu Thr Gly Ile Ile Gly
Ser Leu Asp Leu Met Gln Arg Tyr Ile Xaa Ala Gly Arg Ser Asp Glu
Ile Gly Arg Leu Thr Asp Ala Ala Val Ser Ser Ala His Arg Ala Ala
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Ala Leu Thr His Arg Leu Leu Ala Phe Ser Arg Arg Gln Ser Leu Ala
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Pro Arg Pro Leu Asp Pro Asn Gln Leu Val Ala Ser Leu Glu Asp Leu
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135
Phe Gln Arg Thr Lys Gly Ala His Ile Thr Leu Lys Val Gln Leu Gly
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Leu Leu Asn Leu Ala Ile
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Gly Asp Gly Ile Ser Leu Asp Pro Ile Ser Asn Glu Leu Leu Ala Pro
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Val Ala Gly Thr Val Thr Gln Leu His Asn Ala His His Ala Leu Thr
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<400> 1111

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actgaactcg tcaacgccgc ctatagccgg gttgacatgg tggaacgccg tggcgaattc
gcagtacgtg gcggcatcgt cgacgtcttc ccaccggtgc tagaacaccc ggtccgtatc
180
gatttttttg gtgacgagat cgaggaaatg acctccttcg cggtagccga ccagcgatcc
240
accgacgaga ctcaccaaga actgatctgc gctccttgcc gtgagctcat cctcaccgac
gaggtacqtt cccgagccaa ggctttgctg accgaccatc ccgaattagc tgacatgttg
gagcggatcg gcaacggtca agctt
385
<210> 1112
<211> 128
<212> PRT
<213> Homo sapiens
<400> 1112
Xaa Arg Val Ala Pro Val Arg Leu Ala Val Gly Glu Glu His Asp Leu
                                    10
Thr Glu Leu Ala Thr Glu Leu Val Asn Ala Ala Tyr Ser Arg Val Asp
                                25
Met Val Glu Arg Arg Gly Glu Phe Ala Val Arg Gly Gly Ile Val Asp
                            40
Val Phe Pro Pro Val Leu Glu His Pro Val Arg Ile Asp Phe Phe Gly
                                            60
                        55
Asp Glu Ile Glu Glu Met Thr Ser Phe Ala Val Ala Asp Gln Arg Ser
                    70
                                        75
Thr Asp Glu Thr His Gln Glu Leu Ile Cys Ala Pro Cys Arg Glu Leu
                                    90
Ile Leu Thr Asp Glu Val Arg Ser Arg Ala Lys Ala Leu Leu Thr Asp
                                105
His Pro Glu Leu Ala Asp Met Leu Glu Arg Ile Gly Asn Gly Gln Ala
                            120
        115
<210> 1113
<211> 400
<212> DNA
<213> Homo sapiens
<400> 1113
nnncgaccga tgagcgatcg cgaacccgtc aacctgggat acccctacgt cgagtctttc
cacteggaet teteggggae eggeggagte gateagaeeg acegttetae caatategae
gagcacacca tegaggagat geatcagate geetegegtt acceegacte cegtteggeg
ttgctgccga tcctgcacct ggttcagtcg gtggacggac gcatctcgcc ggtcggtatt
gagactgegg ctgaagtgct eggcattace acegeceagg tateeggggt ggcgacette
300
```

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tacaccatgt ataagaagca ccctgegggc cagcatcaca teggtgtctg caccacggeg
ctgtgcgccg tcatgggtgg cgaggaggtg cttgcccgtn
400
<210> 1114
<211> 133
<212> PRT
<213> Homo sapiens
<400> 1114
Xaa Arq Pro Met Ser Asp Arq Glu Pro Val Asn Leu Gly Tyr Pro Tyr
                 5
                                     10
Val Glu Ser Phe His Ser Asp Phe Ser Gly Thr Gly Gly Val Asp Gln
            20
Thr Asp Arg Ser Thr Asn Ile Asp Glu His Thr Ile Glu Glu Met His
                            40
Gln Ile Ala Ser Arg Tyr Pro Asp Ser Arg Ser Ala Leu Leu Pro Ile
Leu His Leu Val Gln Ser Val Asp Gly Arg Ile Ser Pro Val Gly Ile
                                         75
Glu Thr Ala Ala Glu Val Leu Gly Ile Thr Thr Ala Gln Val Ser Gly
                85
                                    90
Val Ala Thr Phe Tyr Thr Met Tyr Lys Lys His Pro Ala Gly Gln His
                                105
His Ile Gly Val Cys Thr Thr Ala Leu Cys Ala Val Met Gly Glu Glu
        115
                            120
Glu Val Leu Ala Arg
    130
<210> 1115
<211> 402
<212> DNA
<213> Homo sapiens
<400> 1115
tctccgactg cacagattag agaaaggact gcgatgacca ttcgcaccac tcatgttggt
tecctgcccc gcacccccga gctgatcgag gcgaatcgtg cgcgccgtga gggttcgctc
ggcgaggctg acttcacgtc gctgctgcag gatcaggttg acggcgttgt gaagcgtcag
gctgagattg gcctggatat cgtcaatgac ggcgagtacg gtcacgcgat gcttgacacg
240
gttgattacg gcgcgtggtg gacgtattcc atctctcgtt tcggcgggct gtcctttgag
300
gacgtgcagc gttttgatgt gcgtcccccg gctggccgtg acggtcgcct gtctttctcg
tcgttcgctg agcgccgcga ctggcagcgt ttccggacgc gt
402
<210> 1116
<211> 134
<212> PRT
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1038

<213> Homo sapiens <400> 1116 Ser Pro Thr Ala Gln Ile Arg Glu Arg Thr Ala Met Thr Ile Arg Thr 10 Thr His Val Gly Ser Leu Pro Arg Thr Pro Glu Leu Ile Glu Ala Asn 20 25 Arg Ala Arg Arg Glu Gly Ser Leu Gly Glu Ala Asp Phe Thr Ser Leu Leu Gln Asp Gln Val Asp Gly Val Val Lys Arg Gln Ala Glu Ile Gly Leu Asp Ile Val Asn Asp Gly Glu Tyr Gly His Ala Met Leu Asp Thr Val Asp Tyr Gly Ala Trp Trp Thr Tyr Ser Ile Ser Arg Phe Gly Gly Leu Ser Phe Glu Asp Val Gln Arg Phe Asp Val Arg Pro Pro Ala Gly 100 105 Arg Asp Gly Arg Leu Ser Phe Ser Ser Phe Ala Glu Arg Arg Asp Trp 125 115 120 Gln Arg Phe Arg Thr Arg. 130 <210> 1117 <211> 307 <212> DNA <213> Homo sapiens <400> 1117 ggcgccggtc ttgccctggc tggaagtggc atgcagacct tggtgcggaa cccgctggct gacccctacc tgctaggtgt atcggctggc gcaagtgtgg gagcaaccgc agtcatcgct 120 ttggggatgt tcacttcgtg gggaactcac cgactcactc ttggtgccct tgtaggggcc ttggcggcag ctgcattggt ctatctcatt tccatggcgc aaggaggcat gacgccgctt eggttggtge tgtegggegt ggtgttgtee teggegttet egegttggeg agttteeteg tctttcq 307 <210> 1118 <211> 102 <212> PRT <213> Homo sapiens <400> 1118 Gly Ala Gly Leu Ala Leu Ala Gly Ser Gly Met Gln Thr Leu Val Arg Asn Pro Leu Ala Asp Pro Tyr Leu Leu Gly Val Ser Ala Gly Ala Ser 25 Val Gly Ala Thr Ala Val Ile Ala Leu Gly Met Phe Thr Ser Trp Gly 40 Thr His Arg Leu Thr Leu Gly Ala Leu Val Gly Ala Leu Ala Ala Ala

```
55
Ala Leu Val Tyr Leu Ile Ser Met Ala Gln Gly Gly Met Thr Pro Leu
                                      · 75
                   70
Arg Leu Val Leu Ser Gly Val Val Leu Ser Ser Ala Phe Ser Arg Trp
                                    90
Arg Val Ser Ser Ser Phe
            100
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<211> 353
<212> DNA
<213> Homo sapiens
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tatecgcate aactgteegg tggccagegt caacgggtte tgettgecat ggcgttggtg
aactcgccgg atctgctcat ttgtgacgag ccgacgaccg ccttggacgt cacggtgcag
tctcaggtac tggcgactat cgatgaggtg cttgactcgg ttggtgccgc atgcctattt
attacccacg atttggcggt tgtctcgcac atctgccggg agcttatcgt gatgacgtcg
ggcaaggtcg ttgaagccgg atcagcgcgt gatgtgttat ctcaccctga tca
<210> 1120
<211> 117
<212> PRT
<213> Homo sapiens
<400> 1120
Arg Val Leu Glu Met Leu Glu Gln Val Gly Ile Glu Asp Pro Ala Arg
                                    10
Val Met Asp Ser Tyr Pro His Gln Leu Ser Gly Gly Gln Arg Gln Arg
                                25
Val Leu Leu Ala Met Ala Leu Val Asn Ser Pro Asp Leu Leu Ile Cys
                            40
Asp Glu Pro Thr Thr Ala Leu Asp Val Thr Val Gln Ser Gln Val Leu
Ala Thr Ile Asp Glu Val Leu Asp Ser Val Gly Ala Ala Cys Leu Phe
                    70
Ile Thr His Asp Leu Ala Val Val Ser His Ile Cys Arg Glu Leu Ile
                                    90
Val Met Thr Ser Gly Lys Val Val Glu Ala Gly Ser Ala Arg Asp Val
           100
Leu Ser His Pro Asp
       115
<210> 1121
<211> 406
<212> DNA
<213> Homo sapiens
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<400> 1121
tgatcaccca tgctccactc gaccgcgcgc tcgacgatgc gacggctgag acgatgctcg
60
cccagggcac ggtgttcatc ccgaccttga cgatgatgaa aggcgtcgcc gcgaatctca
120
ccgcagcggg cgttcccggt gtgagctatg cacacgccca cgagagcacg cgcgcgatgc
atgeegegg egtteeggte etggeeggea eegaegeeta categggtee tteacaeggg
categoegee atacggegag ageatgeacg acgaagaege ctacateggg etectegaac
gggcaatgcc gccatacggc gagagcatgc acgacgaact cgctctgctc gtggacgccg
gcctgtcaac agccgaagcg ctgcgcgctg ccacctcgac gggcgc
406
<210> 1122
<211> 117
<212> PRT
<213> Homo sapiens
<400> 1122
Met Leu Ala Gln Gly Thr Val Phe Ile Pro Thr Leu Thr Met Met Lys
1
Gly Val Ala Ala Asn Leu Thr Ala Ala Gly Val Pro Gly Val Ser Tyr
Ala His Ala His Glu Ser Thr Arg Ala Met His Ala Ala Gly Val Pro
Val Leu Ala Gly Thr Asp Ala Tyr Ile Gly Ser Phe Thr Arg Ala Ser
                        55
Pro Pro Tyr Gly Glu Ser Met His Asp Glu Asp Ala Tyr Ile Gly Leu
                    70
                                        75
Leu Glu Arg Ala Met Pro Pro Tyr Gly Glu Ser Met His Asp Glu Leu
                85
                                    90
Ala Leu Leu Val Asp Ala Gly Leu Ser Thr Ala Glu Ala Leu Arg Ala
            100
Ala Thr Ser Thr Gly
        115
<210> 1123
<211> 337
<212> DNA
<213> Homo sapiens
<400> 1123
geoggegatg egiteattaa ggeetaagat gegeegaege eteecegett teetegeeet
egectecace gecettgeeg cageggggat ggtggggtge tegteegagg gggcategee
aagegaatge teeeetgttg atattgeege agtgegegag geeetgeege attegetege
taaggegaag etegaeeege aetecaeeaa egaggatgaa caeteetttt eeatgeteta
240
```

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ccgcgcgcaa gataaggagc aggtcagctt gctggggacg aagtatgagg ccgacggtgc
acceptetge eccgatgace ecaatgagge agegege
337
<210> 1124
<211> 110
<212> PRT
<213> Homo sapiens
<400> 1124
Met Arg Ser Leu Arg Pro Lys Met Arg Arg Arg Leu Pro Ala Phe Leu
1
Ala Leu Ala Ser Thr Ala Leu Ala Ala Ala Gly Met Val Gly Cys Ser
                                                     30
Ser Glu Gly Ala Ser Pro Ser Glu Cys Ser Pro Val Asp Ile Ala Ala
Val Arg Glu Ala Leu Pro His Ser Leu Ala Lys Ala Lys Leu Asp Pro
His Ser Thr Asn Glu Asp Glu His Ser Phe Ser Met Leu Tyr Arg Ala
65
                                        75
                    70
Gln Asp Lys Glu Gln Val Ser Leu Leu Gly Thr Lys Tyr Glu Ala Asp
                                    90
Gly Ala Pro Val Cys Pro Asp Asp Pro Asn Glu Ala Ala Arg
<210> 1125
<211> 555
<212> DNA
<213> Homo sapiens
<400> 1125
nnettgaate gaateggeat tgegtetaaa catgacgttg agacactete tgetaagete
gaagagetga eggeattget agaaegtgte gegegtaaae actaaggaga categggatg
gctgttaaaa agactactca gaaagaaggc agctcgtgga tcggggaagt tgaaaaatat
tcccqtaaaa tctqqcttqc tqqtttaqgc qtgtactcga aggttaqcag tgacggcggc
aaatacttcg agacgttggt caaggacggc gagaaggccg agaagttgac caagagccca
gtcggtaaaa aagtagaggc ggcaaaagcg agcgccggtt ctgcgaaatc gagcatttcg
360
gatacctggg gcaagttgga agagactttc gacaagcgtc tcaacagtgc tatttcgcga
420
ttgggcgtgc ccagcaaagc ggaactgaag acgctgcaca gcaaggtcga taccctgacc
480
aagcaaatcg aaaaactcac cggtgccaaa gtggccccgg ctaaaacggc agccgctaaa
540
cctgctgcca agctt
555
<210> 1126
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1042

<211> 146

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<212> PRT
<213> Homo sapiens
<400> 1126
Met Ala Val Lys Lys Thr Thr Gln Lys Glu Gly Ser Ser Trp Ile Gly
1
                 5
                                    10
Glu Val Glu Lys Tyr Ser Arg Lys Ile Trp Leu Ala Gly Leu Gly Val
                                25
Tyr Ser Lys Val Ser Ser Asp Gly Gly Lys Tyr Phe Glu Thr Leu Val
Lys Asp Gly Glu Lys Ala Glu Lys Leu Thr Lys Ser Pro Val Gly Lys
Lys Val Glu Ala Ala Lys Ala Ser Ala Gly Ser Ala Lys Ser Ser Ile
                    70
                                        75
Ser Asp Thr Trp Gly Lys Leu Glu Glu Thr Phe Asp Lys Arg Leu Asn
Ser Ala Ile Ser Arg Leu Gly Val Pro Ser Lys Ala Glu Leu Lys Thr
            100
                                105
Leu His Ser Lys Val Asp Thr Leu Thr Lys Gln Ile Glu Lys Leu Thr
                            120
                                                125
Gly Ala Lys Val Ala Pro Ala Lys Thr Ala Ala Lys Pro Ala Ala
    130
                        135
                                            140
Lys Leu
145
<210> 1127
<211> 352
<212> DNA
<213> Homo sapiens
<400> 1127
cccgaccgcg tactcgtggt cggtgccgga gtgatgggtg cagcacacgc acacgcgctc
cgcgggtccc tccaggcagt cgtgtgcggc gtggtcgacc tgcaggagcg agcagcgcaa
120
teactegett eggaagtggg egtaceeggg tteacegace tggtgaagge gategagteg
accgctccgg acgccgcggt catcgccacg ccggactcgg ctcaccgcca accggctgag
accgccatcg acgccggcct tgccgtcctg gtcgagaaac cgctcgccac gaccgtcgat
gacgccgaag cgatcgtgct ccgcgctgaa cgggccggcg tccgtctcat ga
<210> 1128
<211> 117
<212> PRT
<213> Homo sapiens
<400> 1128
Pro Asp Arg Val Leu Val Val Gly Ala Gly Val Met Gly Ala Ala His
                                    10
Ala His Ala Leu Arg Gly Ser Leu Gln Ala Val Val Cys Gly Val Val
```

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25
Asp Leu Gln Glu Arg Ala Ala Gln Ser Leu Ala Ser Glu Val Gly Val
Pro Gly Phe Thr Asp Leu Val Lys Ala Ile Glu Ser Thr Ala Pro Asp
                        55
Ala Ala Val Ile Ala Thr Pro Asp Ser Ala His Arg Gln Pro Ala Glu
                    70
                                        75
Thr Ala Ile Asp Ala Gly Leu Ala Val Leu Val Glu Lys Pro Leu Ala
                                    90
Thr Thr Val Asp Asp Ala Glu Ala Ile Val Leu Arg Ala Glu Arg Ala
            100
                                105
Gly Val Arg Leu Met
        115
<210> 1129
<211> 336
<212> DNA
<213> Homo sapiens
<400> 1129
ntggcagece tggaggagec gatggtggae etggaeggeg agetgeettt egtgeggeee
ctgccccaca ttgccgtgct ccaggacgag ctgccgcaac tcttccagga tgacgacgtc
ggggccgatg aggaagaggc agagttgcgg ggcgaacaca cgctcacaga gaagtttgtc
tgcctggatg actcctttgg ccatgactgc agcttgacct gtgatgactg caggaacgga
gggacctgcc tcctgggcct ggatggctgg gattgccccg agggctggac tgggctcatc
tgcaatgaga cttggtcctc gggctgcatg gatatt
336
<210> 1130
<211> 112
<212> PRT
<213> Homo sapiens
<400> 1130
Xaa Ala Ala Leu Glu Glu Pro Met Val Asp Leu Asp Gly Glu Leu Pro
Phe Val Arg Pro Leu Pro His Ile Ala Val Leu Gln Asp Glu Leu Pro
Gln Leu Phe Gln Asp Asp Val Gly Ala Asp Glu Glu Glu Ala Glu
                            40
Leu Arg Gly Glu His Thr Leu Thr Glu Lys Phe Val Cys Leu Asp Asp
                        55
Ser Phe Gly His Asp Cys Ser Leu Thr Cys Asp Asp Cys Arg Asn Gly
                    70
Gly Thr Cys Leu Leu Gly Leu Asp Gly Trp Asp Cys Pro Glu Gly Trp
                                   90
Thr Gly Leu Ile Cys Asn Glu Thr Trp Ser Ser Gly Cys Met Asp Ile
           100
                                105
                                                    110
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<210> 1131
<211> 672
<212> DNA
<213> Homo sapiens
<400> 1131
gegttggtgg tgctcatggc ccgggaaaat ccgctggatc aatacctctt tgagcacccc
gaattattgt totogtooto ggtggaatog actgtgttgc accoggataa cocgtatgtg
cteggeeege aegtggeege ggeegeeeag gaggeatace teteceetge ggaegaagag
ttttacgggt cggcctttgc cgggatatgc aaaacgctga caggccagaa cgtactgcga
cgtcgcggaa atcggctgtt ctggactcgt ccggaacggg ctgtcgacgc catcgacctg
cgatcggcgg caggcaaagg gattgacatt atcgacgtgt ccaccgggag ggtcatcggg
gtagtcgacg aagccgccgc agaccgtacc gtgcatccag gcgcggtgta cctgcatcag
ggggatcagt ggctggtcga cgaatacaac ccggtcgagc accacgccct ggtgcaccag
gacctgccgg gatattggac tcaaccgcag tcagcgtcga cggtgagaat ccttcgggag
gagagacgtc gcgcttgtgg tcccggatat gtggcgtgcg ggcaggtgga actgacagag
caagttgttg ggtatctgcg tcgcgacgaa ttcaccaatg atgtgtggta ctcgctggcc
660
ctcgagatgc cc
672
<210> 1132
<211> 224
<212> PRT
<213> Homo sapiens
<400> 1132
Ala Leu Val Val Leu Met Ala Arg Glu Asn Pro Leu Asp Gln Tyr Leu
                                    10
Phe Glu His Pro Glu Leu Leu Phe Ser Ser Ser Val Glu Ser Thr Val
                                25
Leu His Pro Asp Asn Pro Tyr Val Leu Gly Pro His Val Ala Ala Ala
                            40
Ala Gln Glu Ala Tyr Leu Ser Pro Ala Asp Glu Glu Phe Tyr Gly Ser
Ala Phe Ala Gly Ile Cys Lys Thr Leu Thr Gly Gln Asn Val Leu Arg
Arg Arg Gly Asn Arg Leu Phe Trp Thr Arg Pro Glu Arg Ala Val Asp
                85
Ala Ile Asp Leu Arg Ser Ala Ala Gly Lys Gly Ile Asp Ile Ile Asp
            100
                                105
Val Ser Thr Gly Arg Val Ile Gly Val Val Asp Glu Ala Ala Ala Asp
                            120
Arg Thr Val His Pro Gly Ala Val Tyr Leu His Gln Gly Asp Gln Trp
```

```
135
Leu Val Asp Glu Tyr Asn Pro Val Glu His His Ala Leu Val His Gln
                    150
                                        155
Asp Leu Pro Gly Tyr Trp Thr Gln Pro Gln Ser Ala Ser Thr Val Arg
                                    170
Ile Leu Arg Glu Glu Arg Arg Ala Cys Gly Pro Gly Tyr Val Ala
            180
                                185
Cys Gly Gln Val Glu Leu Thr Glu Gln Val Val Gly Tyr Leu Arg Arg
                            200
                                                205
Asp Glu Phe Thr Asn Asp Val Trp Tyr Ser Leu Ala Leu Glu Met Pro
                        215
                                            220
<210> 1133
<211> 796
<212> DNA
<213> Homo sapiens
<400> 1133
acgcgtgaag gggggtccag cgggtgtggc actcgatgac aagacagttt gagagcggct
tgtctccggg gacctggcgt aggtctcctc tgccttaacc cttggctttt gcacttcctc
120
tgtctgtcct ccatacaagc ttcttgcccc tagggaggac gggcttctta acagggggag
180
ceggtteetg tectaaccc actggcatet tacactetgg gagatagett ceceetgaga
ggcgagtgag ccacgtaagg ggaggtgggc gatggcttcc cttctgtctt gggttggggg
agtcaggtac agtattttt cttttaaagc atcattgatc acataataag gtttgtcata
360
gtccttaatc acagacctgt gaaatttgga gaattcacgg cacctaggat gggagtgagc
ttctqattqt gagctqattt gggagctaac ctcaaggaaa ctcctcttgc aagccccctg
ctgggtgtcg gggccttcgc cagggacctc ccggggactc tggacgctct ttgtctgccc
tteettttee eteacetege teeceegtga gaaagtgggg eteatgeage teageteagt
gacagagggt ttattagggg tagctctggg acccatcttt tggtgatttc ttctctctct
ttototaatg gaataattgt ttotgtotac acttotttat tttotoctot ctacagotgo
cttctaaaaa tgtgcttttc tgttcctgca gaactgaagc ttgcatggcc tttgttgtga
ctttcccttc acgcgt
796
<210> 1134
<211> 147
<212> PRT
<213> Homo sapiens
<400> 1134
Met Gly Pro Arg Ala Thr Pro Asn Lys Pro Ser Val Thr Glu Leu Ser
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10
Cys Met Ser Pro Thr Phe Ser Arg Gly Ser Glu Val Arg Glu Lys Glu
                                25
Gly Gln Thr Lys Ser Val Gln Ser Pro Arg Glu Val Pro Gly Glu Gly
Pro Asp Thr Gln Gln Gly Ala Cys Lys Arg Ser Phe Leu Glu Val Ser
                        55
Ser Gln Ile Ser Ser Gln Ser Glu Ala His Ser His Pro Arg Cys Arg
                                        75
Glu Phe Ser Lys Phe His Arg Ser Val Ile Lys Asp Tyr Asp Lys Pro
                                    90
Tyr Tyr Val Ile Asn Asp Ala Leu Lys Glu Lys Ile Leu Tyr Leu Thr
                                105
Pro Pro Thr Gln Asp Arg Glu Ala Ile Ala His Leu Pro Leu Arg
                            120
Gly Ser Leu Ala Ser Gln Gly Glu Ala Ile Ser Gln Ser Val Arg Cys
   130
                        135
                                            140
Gln Trp Gly
145
<210> 1135
<211> 376
<212> DNA
<213> Homo sapiens
<400> 1135
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agaaagatet etgegeacat egetgeagee gtggetgeaa aageetaega geteggtetg
gegaccegte tgeeteece cagegacetg gtgaaatatg cagagaactg catgtacact
cccgtctacc gcaactaccg gtagtgctgc ggggatcaat tttgcagtaa taaaaaatct
actatcaacg cggatggtac tctgttgttt atagtccctg ctgctaacca cccttgttgc
tggtgctgct ggagaggcat tgtacctgtc catgcatata tgatatatat atgttgtaac
gttgtgaaag caaact
376
<210> 1136
<211> 67
<212> PRT
<213> Homo sapiens
<400> 1136
Asp Gln Ala Thr Gln Asp Asn Phe Glu Lys Gly Ser Ile Phe Pro Pro
Phe Thr Ser Ile Arg Lys Ile Ser Ala His Ile Ala Ala Ala Val Ala
                                25
Ala Lys Ala Tyr Glu Leu Gly Leu Ala Thr Arg Leu Pro Pro Pro Ser
                            40
Asp Leu Val Lys Tyr Ala Glu Asn Cys Met Tyr Thr Pro Val Tyr Arg
```

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50
                        55
                                             60
Asn Tyr Arg
<210> 1137
<211> 357
<212> DNA
<213> Homo sapiens
<400> 1137
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atcattgacc tgcaccagtc gctgacctac attgataagg cgtacgcctt cgtcaaggag
actgtcgcca agggcggcca gattcttttc gtcggcacga agaagcaggc ccaggagtcc
ategttgage aggecacteg egttggeatg ecetatgtea accagegttg gettggggga
atgeteacta atttecagae catetegaag egeattgeee ggeteaagga getegaggee
atggactttg acaaggtttc cggctccggt ctcaccaaga aggagctgct tatgctc
357
<210> 1138
<211> 119
<212> PRT
<213> Homo sapiens
<400> 1138
Thr Arg Arg Trp Asn Pro Lys Met Lys Arg Phe Ile Phe Thr Glu Arg
                                    10
Asn Gly Ile Tyr Ile Ile Asp Leu His Gln Ser Leu Thr Tyr Ile Asp
Lys Ala Tyr Ala Phe Val Lys Glu Thr Val Ala Lys Gly Gln Ile
                            40
Leu Phe Val Gly Thr Lys Lys Gln Ala Gln Glu Ser Ile Val Glu Gln
                        55
                                            60
Ala Thr Arg Val Gly Met Pro Tyr Val Asn Gln Arg Trp Leu Gly Gly
                    70
                                        75
Met Leu Thr Asn Phe Gln Thr Ile Ser Lys Arg Ile Ala Arg Leu Lys
                85
                                    90
Glu Leu Glu Ala Met Asp Phe Asp Lys Val Ser Gly Ser Gly Leu Thr
                                105
Lys Lys Glu Leu Leu Met Leu
       115
<210> 1139
<211> 456
<212> DNA
<213> Homo sapiens
<400> 1139
gtgcacaggt cgtctgaggc catgccgcgg acgatcgatc cgagtatggc ggcaccttca
60
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ccaatcccgt aggacccgtc tcgtccagca tcgaccaagg cgctgttgag gcgttcggct

```
toggtaatga actogatgog otcaatatoo acgggggtag ogaaatogta gatottggoo
 180
 agactgaggc cttggaggag cgcggccgtc ggggggacgt ggcctgcggc cgggcgttcc
 240
 ttgctctcaa ggacttcgtc gtcgcggctg acaaggaata cgtttgtgtg gtcgcctgca
 300
 atgeatgete gagegtggtg accategagg tgaaggaegg ttteggeata gaggteateg
 tecacategg ccacagtgag ttegacgaet cetgagtega etagatgaeg egeettetet
 geogegtett egetgaegte ggecaggaee getage
 456
 <210> 1140
 <211> 122
 <212> PRT
 <213> Homo sapiens
 <400> 1140
Met Trp Thr Met Thr Ser Met Pro Lys Pro Ser Phe Thr Ser Met Val
Thr Thr Leu Glu His Ala Leu Gln Ala Thr Thr Gln Thr Tyr Ser Leu
Ser Ala Ala Thr Thr Lys Ser Leu Arg Ala Arg Asn Ala Arg Pro Gln
Ala Thr Ser Pro Arg Arg Pro Arg Ser Ser Lys Ala Ser Val Trp Pro
                         55
                                             60
Arg Ser Thr Ile Ser Leu Pro Pro Trp Ile Leu Ser Ala Ser Ser Ser
                     70
                                         75
Leu Pro Lys Pro Asn Ala Ser Thr Ala Pro Trp Ser Met Leu Asp Glu
                85
                                    90
Thr Gly Pro Thr Gly Leu Val Lys Val Pro Pro Tyr Ser Asp Arg Ser
                                                     110
Ser Ala Ala Trp Pro Gln Thr Thr Cys Ala
        115
                             120
<210> 1141
<211> 354
<212> DNA
<213> Homo sapiens
<400> 1141
ggcgccatgc tcggcgggct ggtgctgggt gtggccgaag cctttggcgc cgatatcttc
ggcgaccagt acaaggacgt ggtggcgttt ggcctgttgg ttctggtgct gttgttccgt
ccgaccggca ttctgggccg tccggaggtt gagaaagtat gagcagatat cttaaatcgg
cgtttttcag cgccctgttg gtgtgggccg tggcctttcc ggtactcggc ctcaagctga
gcattgtcgg gatcaaccac gaagtgcatg gcaccggtcc cgtgaccttg accatcatcg
300
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ccctgtgctc ggtgccgatg ttcctgcgcg tgctgtttac ccagcaagtc ggtg
<210> 1142
<211> 53
<212> PRT
<213> Homo sapiens
<400> 1142
Gly Ala Met Leu Gly Gly Leu Val Leu Gly Val Ala Glu Ala Phe Gly
1
                 5
                                     10
Ala Asp Ile Phe Gly Asp Gln Tyr Lys Asp Val Val Ala Phe Gly Leu
Leu Val Leu Val Leu Leu Phe Arg Pro Thr Gly Ile Leu Gly Arg Pro
                            40
Glu Val Glu Lys Val
    50
<210> 1143
<211> 353
<212> DNA
<213> Homo sapiens
<400> 1143
acgogttgca catcccccag gaccatcaac cgcggcattg ccgcatagac ctggagatcc
catgcaacgt gaaatgaagt tegaategat caaggcaaag gecaaggega tgeteategg
cgcagccgac gacacagcaa gcgcaggcgc gaccaaccga gggtggctca acagcgccgc
attegaaate etggeecaeg tggeegteaa tgeecaacae taegegetet eegagagaee
ggcgctggag gagttcgcca agagcttcca gccgcgcaac aaccaggact acgtggccgc
gategecaag aaggeegega accaeaceat geateeegge aggeagtega ttt
353
<210> 1144
<211> 102
<212> PRT
<213> Homo sapiens
<400> 1144
Met His Gly Val Val Arg Gly Leu Leu Gly Asp Arg Gly His Val Val
                                    10
Leu Val Val Ala Arg Leu Glu Ala Leu Gly Glu Leu Leu Gln Arg Arg
Ser Leu Gly Glu Arg Val Val Leu Gly Ile Asp Gly His Val Gly Gln
                            40
Asp Phe Glu Cys Gly Ala Val Glu Pro Pro Ser Val Gly Arg Ala Cys
                        55
Ala Cys Cys Val Val Gly Cys Ala Asp Glu His Arg Leu Gly Leu Cys
                    70
                                        75
Leu Asp Arg Phe Glu Leu His Phe Thr Leu His Gly Ile Ser Arg Ser
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85
                                    90
                                                         95
Met Arg Gln Cys Arg Gly
            100
<210> 1145
<211> 360
<212> DNA
<213> Homo sapiens
<400> 1145
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catgaagtgg ccggcacctg ggtactcggg ctgtcggcgg cgatggctct gatggtgttt
ttctacgtcc aggtcatcgc caagaagatc aatcctcgac cctccgacga gaaggacgcc
gaggtgatcg acggggctgg tccggtcggt ttcttcccgc cacagagtat ctggccgttc
tggtgcgcgc tcgttgtcgc catcatgtgc ctcggcccga tcttcggctg gtggatctct
ctgctcgggc tgggcattgt tatctgggcc gcctcgggtt gggcttttga gtactaccgc
<210> 1146
<211> 120
<212> PRT
<213> Homo sapiens
<400> 1146
Val Phe Gly Gly Leu Gly Leu Phe Tyr Cys Val Met Thr Pro Val Tyr
1
Trp Phe Ser Ala His Glu Val Ala Gly Thr Trp Val Leu Gly Leu Ser
                                25
Ala Ala Met Ala Leu Met Val Phe Phe Tyr Val Gln Val Ile Ala Lys
                            40
Lys Ile Asn Pro Arg Pro Ser Asp Glu Lys Asp Ala Glu Val Ile Asp
                        55
                                             60
Gly Ala Gly Pro Val Gly Phe Phe Pro Pro Gln Ser Ile Trp Pro Phe
                    70
                                        75
Trp Cys Ala Leu Val Val Ala Ile Met Cys Leu Gly Pro Ile Phe Gly
                                    90
Trp Trp Ile Ser Leu Leu Gly Leu Gly Ile Val Ile Trp Ala Ala Ser
            100
Gly Trp Ala Phe Glu Tyr Tyr Arg
                            120
       115
<210> 1147
<211> 409
<212> DNA
<213> Homo sapiens
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gccaaaaagg catccacctt cttcatcaat ccagaattga tcatgctcat gcctgtgggt
ggatcactat gtgctctcca aattgggagg ggaagtctac tctcctctct cctctctc
ccaccttccc ctctctttc tctcctttct attcccaggg cagtggaaca tgatgaggtt
cttttccctt catggatatc ctctttctgc cctccacata aaggggcatt gatggatctt
caagaatggg atgcctttcc ctagaaaggc taaatattca tgaggctgaa tgtgaggatc
cagagtacac tgaaatataa ctggtcatca gtacacatag aatctgatn
409
<210> 1148
<211> 103
<212> PRT
<213> Homo sapiens
<400> 1148
Met Gln Ser Gly Leu Leu Lys Val Met Ile Val Ala Lys Asn Ile Glu
                                    10
Ala Lys Lys Ala Ser Thr Phe Phe Ile Asn Pro Glu Leu Ile Met Leu
Met Pro Val Gly Gly Ser Leu Cys Ala Leu Gln Ile Gly Arg Gly Ser
                            40
Leu Leu Ser Ser Leu Leu Ser Leu Pro Pro Ser Pro Leu Ser Ser Leu
Leu Ser Ile Pro Arg Ala Val Glu His Asp Glu Val Leu Phe Pro Ser
                                        75
Trp Ile Ser Ser Phe Cys Pro Pro His Lys Gly Ala Leu Met Asp Leu
Gln Glu Trp Asp Ala Phe Pro
            100
<210> 1149
<211> 309
<212> DNA
<213> Homo sapiens
<400> 1149
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cgtgaggcgg tatcgcagat cattaccttc ggtaccatgg cggcgaaagc ggttattcgt
120
gacgtgggcc gtgtactggg tcacccgtat ggcttcgtcg atcgcatctc caagctggtg
180
ccgcccgatc cgggcatgac gctggaaaaa gcctttgccg ccgaaccgca gttgccggaa
atctacgagg ccgatgagga agtcaaagcg ctgatcgaca tggcgcgcaa gctgggaagg
300
gtgacgcgg
309
<210> 1150
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<211> 103
<212> PRT
<213> Homo sapiens
<400> 1150
Val Asp Phe Cys Met Glu Lys Arg Asp Leu Val Ile Glu His Val Ala
                                    10
Glu Met Tyr Gly Arg Glu Ala Val Ser Gln Ile Ile Thr Phe Gly Thr
Met Ala Ala Lys Ala Val Ile Arg Asp Val Gly Arg Val Leu Gly His
Pro Tyr Gly Phe Val Asp Arg Ile Ser Lys Leu Val Pro Pro Asp Pro
                        55
Gly Met Thr Leu Glu Lys Ala Phe Ala Ala Glu Pro Gln Leu Pro Glu
                                        75
                    70
Ile Tyr Glu Ala Asp Glu Glu Val Lys Ala Leu Ile Asp Met Ala Arg
                                    90
Lys Leu Gly Arg Val Thr Arg
           100
<210> 1151
<211> 360
<212> DNA
<213> Homo sapiens
<400> 1151
gcgcgcattt tttgcaaccc aagcgacgtc attatggccg agtcgccggc ttatgtcggg
gcgctcaata ccttcgcctc gtaccaaact gaggtcattc acgtcgacat ggacgacagc
gggttggttc cggaatccct gcgtgagaaa gtgactgcag cgcgtcaaga cggcaagtcg
gtgaagttcc tttacacggt tcctaactac tcgaacccgt cgggaatctc gcaatccacc
gagegtegee gggagateet ageggtgget gaegagetgg atetgttggt ggttgaggae
aaccegtacg ggttactcaa cctcgatggt gatccactgc cgacgttgaa gtcgatggat
360
<210> 1152
<211> 120
<212> PRT
<213> Homo sapiens
<400> 1152
Ala Arg Ile Phe Cys Asn Pro Ser Asp Val Ile Met Ala Glu Ser Pro
                 5
                                    10
Ala Tyr Val Gly Ala Leu Asn Thr Phe Ala Ser Tyr Gln Thr Glu Val
            20
Ile His Val Asp Met Asp Asp Ser Gly Leu Val Pro Glu Ser Leu Arg
                            40
Glu Lys Val Thr Ala Ala Arg Gln Asp Gly Lys Ser Val Lys Phe Leu
                                            60
                        55
Tyr Thr Val Pro Asn Tyr Ser Asn Pro Ser Gly Ile Ser Gln Ser Thr
```

```
70
Glu Arg Arg Glu Ile Leu Ala Val Ala Asp Glu Leu Asp Leu Leu
                                    90
Val Val Glu Asp Asn Pro Tyr Gly Leu Leu Asn Leu Asp Gly Asp Pro
            100
                                105
Leu Pro Thr Leu Lys Ser Met Asp
        115
<210> 1153
<211> 416
<212> DNA
<213> Homo sapiens
<400> 1153
gegtggattc gtcctggcgg cgtcgctacc gacctgcccg agaccgggct cgaccagttg
cgtgacctca tcaagcggat ggaaaagtac ctccccgaga tcggtcagtt ctgcaatgag
120
aatcogatct ttaaggcccg cactcagggc attggttacg ctgatctgtc tacctgtatg
180
gccctgggag ttactggtcc tgctctgcgc gctaccggcc tgccgtggga cctgcgcaag
acceagecet attgegatta egacaegtat gaettegaeg tegecaeetg ggataeetgt
gactgttacg ggcgtttccg catcegcctg gaagagatgg accagtcggt gcgcattctc
aagcaatgcc tcaaacgcct cgaggacacc cagggtgacc gtaatatggt cgagga
416
<210> 1154
<211> 138
<212> PRT
<213> Homo sapiens
<400> 1154
Ala Trp Ile Arg Pro Gly Gly Val Ala Thr Asp Leu Pro Glu Thr Gly
                                    10
Leu Asp Gln Leu Arg Asp Leu Ile Lys Arg Met Glu Lys Tyr Leu Pro
                                25
Glu Ile Gly Gln Phe Cys Asn Glu Asn Pro Ile Phe Lys Ala Arg Thr
                            40
Gln Gly Ile Gly Tyr Ala Asp Leu Ser Thr Cys Met Ala Leu Gly Val
Thr Gly Pro Ala Leu Arg Ala Thr Gly Leu Pro Trp Asp Leu Arg Lys
                                        75
Thr Gln Pro Tyr Cys Asp Tyr Asp Thr Tyr Asp Phe Asp Val Ala Thr
                85
                                    90
Trp Asp Thr Cys Asp Cys Tyr Gly Arg Phe Arg Ile Arg Leu Glu Glu
           100
                               105
Met Asp Gln Ser Val Arg Ile Leu Lys Gln Cys Leu Lys Arg Leu Glu
                           120
                                               125
Asp Thr Gln Gly Asp Arg Asn Met Val Glu
   130
                        135
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<210> 1155
<211> 339
<212> DNA
<213> Homo sapiens
<400> 1155
cttaagttat tttggtcttt gcctctctcc tcaggttgtg aagattacag aaatctggga
tggcttatgg gacgcttctc agccctaagt aggaaaacag cagtgaaaat ggcaaccaaa
120
acatcacgca ggactggggg ttttggggaa acagctcact ttagagcagt gcagtgtaga
180
gettteegte ttetaccagg gtecacettt aacaetgttt atetgaaaat ttteceeetg
gettactege ttgcagetge ceaetttgca gaaagatgge getetgatet etaegeteee
tgttccttca gggactccat agtattttt ttcacgcgt
339
<210> 1156
<211> 91
<212> PRT
<213> Homo sapiens
<400> 1156
Met Gly Arg Phe Ser Ala Leu Ser Arg Lys Thr Ala Val Lys Met Ala
                                    10
Thr Lys Thr Ser Arg Arg Thr Gly Gly Phe Gly Glu Thr Ala His Phe
                                25
Arg Ala Val Gln Cys Arg Ala Phe Arg Leu Leu Pro Gly Ser Thr Phe
        35
                            40
                                                45
Asn Thr Val Tyr Leu Lys Ile Phe Pro Leu Ala Tyr Ser Leu Ala Ala
                                            60
Ala His Phe Ala Glu Arg Trp Arg Ser Asp Leu Tyr Ala Pro Cys Ser
                    70
                                                             80
Phe Arg Asp Ser Ile Val Phe Phe Phe Thr Arg
                85
<210> 1157
<211> 426
<212> DNA
<213> Homo sapiens
<400> 1157
nnacageete teteegacee ggeggeggtt geacaegtee eegtetgagg agtattegtg
ctggcaaaac tcgtgacccg acacctgagg gcctatcggt tgcacgttgc cgtcatcatc
gttatgcagg tttgcgccca aatcgcggcc ctgaccttgc caaccatcaa cgcagacatc
atcaacaagg gegtegtgac ageggatace ggatatgtea ceacecacte cetetteatg
ctggcggtcg ctttagggca ggccatctgc caggtcattg cggtttatct cgccgctcag
```

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gtggcgatgg gaatgggccg tgacgttcgc gacgccatct tcacccgcac ccttgacttc
toggocoggg agatcaacaa attoggagca coatcactca ttaccoggac taccaacgac
420
gtccag
426
<210> 1158
<211> 123
<212> PRT
<213> Homo sapiens
<400> 1158
Val Leu Ala Lys Leu Val Thr Arg His Leu Arg Ala Tyr Arg Leu His
 1
                                     10
Val Ala Val Ile Ile Val Met Gln Val Cys Ala Gln Ile Ala Ala Leu
Thr Leu Pro Thr Ile Asn Ala Asp Ile Ile Asn Lys Gly Val Val Thr
                            40
Ala Asp Thr Gly Tyr Val Thr Thr His Ser Leu Phe Met Leu Ala Val
Ala Leu Gly Gln Ala Ile Cys Gln Val Ile Ala Val Tyr Leu Ala Ala
Gln Val Ala Met Gly Met Gly Arg Asp Val Arg Asp Ala Ile Phe Thr
                                     90
Arg Thr Leu Asp Phe Ser Ala Arg Glu Ile Asn Lys Phe Gly Ala Pro
            100
                                105
                                                    110
Ser Leu Ile Thr Arg Thr Thr Asn Asp Val Gln
                            120
<210> 1159
<211> 434
<212> DNA
<213> Homo sapiens
<400> 1159
teteteegae egegeetggg geeeggtggg gteetgeggg gaegegggeg aggaeggege
ggacgaggca ggagcaggcc gggctctcgc catgggtcac tgtcgcctct gccacgggaa
120
gttttcctcg agaagcctgc gcagcatctc cgagagggcg cctggagcga gcatggagag
180
gecateegea gaggagegeg tgetegtaeg ggaetteeag egeetgettg gtgtggetgt
ccgccaggac cccaccttgt ctccgtttgt ctgcaagagc tgccacgccc agttctacca
300
gtgccacage ettetcaagt cetteetgca gagggtcaac geeteeegg etggtegeeg
360
gaagcettgt gcaaaggteg gtgcccagcc cccaacaggg gcagaggagg gagcgtgtct
ggtggatctg atca
434
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<210> 1160

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<211> 114
<212> PRT
<213> Homo sapiens
<400> 1160
Met Gly His Cys Arg Leu Cys His Gly Lys Phe Ser Ser Arg Ser Leu
                 5
                                     10
Arg Ser Ile Ser Glu Arg Ala Pro Gly Ala Ser Met Glu Arg Pro Ser
Ala Glu Glu Arg Val Leu Val Arg Asp Phe Gln Arg Leu Leu Gly Val
Ala Val Arg Gln Asp Pro Thr Leu Ser Pro Phe Val Cys Lys Ser Cys
His Ala Gln Phe Tyr Gln Cys His Ser Leu Leu Lys Ser Phe Leu Gln
                    70
Arg Val Asn Ala Ser Pro Ala Gly Arg Arg Lys Pro Cys Ala Lys Val
                                     90
Gly Ala Gln Pro Pro Thr Gly Ala Glu Glu Gly Ala Cys Leu Val Asp
            100
                                105
Leu Ile
<210> 1161
<211> 355
<212> DNA
<213> Homo sapiens
<400> 1161
ctgcacacac accaggccac gcccacgagg acggccagtc agcatgcagc caatacaccc
acagagggat ggggagcagc cctcagtgcc agctccaaca ggcccactgc aggtcctgtc
actgcaccca aggagetgce ttecatttea cetgacattt ceactaaggg eccagegttt
180
atcattccag aagagcagca ggcagaacct tcacctccca agagctgcaa gtgcgctgtg
gcaggaaaag aagatctggc gtctgaagtc agctcctgct ctccaggaaa agagggacga
tgacatagga cttgagcaaa atgagagccc cgtgatggga gagaacacct gatca
355
<210> 1162
<211> 102
<212> PRT
<213> Homo sapiens
Met Gln Pro Ile His Pro Gln Arg Asp Gly Glu Gln Pro Ser Val Pro
Ala Pro Thr Gly Pro Leu Gln Val Leu Ser Leu His Pro Arg Ser Cys
            20
                                25
Leu Pro Phe His Leu Thr Phe Pro Leu Arg Ala Gln Arg Leu Ser Phe
Gln Lys Ser Ser Arg Gln Asn Leu His Leu Pro Arg Ala Ala Ser Ala
```

```
55
Leu Trp Gln Glu Lys Lys Ile Trp Arg Leu Lys Ser Ala Pro Ala Leu
                    70
                                        75
Gln Glu Lys Arg Asp Asp Ile Gly Leu Glu Gln Asn Glu Ser Pro
                85
                                    90
Val Met Gly Glu Asn Thr
            100
<210> 1163
<211> 466
<212> DNA
<213> Homo sapiens
<400> 1163
ngcgcgccag gaagcgggag gtcagctgta cacccagggt aatagaactt ctaccctcag
aggagtcaaa gagaaggcag aactatggca ggaaagctcc ggaagtccca catccctgga
gtgagcatct ggcagctggt ggaggagatc cctgaaggct gcagcacgcc ggactttgag
cagaagcccg tcacctcggc tctgccagag gggaaaaatg ctgtctttcg ggctgtggtc
tgtggggagc ccaggcccga ggtgcgttgg cagaactcca aaggtgacct cagtgattcc
agcaagtaca agateteete eageeetgge agcaaggage aegtgetgea gateaacaag
ctgacaggcg aggacacgga tctgtaccac tgcacagcag taaatgcgta cggagaggcc
gcttgctcag tgagactcac cgtcatcgaa gttggctttc ggaaga
466
<210> 1164
<211> 127
<212> PRT
<213> Homo sapiens
<400> 1164
Met Ala Gly Lys Leu Arg Lys Ser His Ile Pro Gly Val Ser Ile Trp
Gln Leu Val Glu Glu Ile Pro Glu Gly Cys Ser Thr Pro Asp Phe Glu
Gln Lys Pro Val Thr Ser Ala Leu Pro Glu Gly Lys Asn Ala Val Phe
                            40
Arg Ala Val Val Cys Gly Glu Pro Arg Pro Glu Val Arg Trp Gln Asn
                        55
                                            60
Ser Lys Gly Asp Leu Ser Asp Ser Ser Lys Tyr Lys Ile Ser Ser Ser
                    70
                                        75
Pro Gly Ser Lys Glu His Val Leu Gln Ile Asn Lys Leu Thr Gly Glu
                                    90
Asp Thr Asp Leu Tyr His Cys Thr Ala Val Asn Ala Tyr Gly Glu Ala
                                105
Ala Cys Ser Val Arg Leu Thr Val Ile Glu Val Gly Phe Arg Lys
        115
                            120
                                                125
```

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<210> 1165
<211> 414
<212> DNA
<213> Homo sapiens
<400> 1165
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tgctttagta aagtccttgt tgagccgcgt ctgctcaagc tcaacttgac nattatgtgt
120
etgeacatte tgetgatgte caegttegtg geeetgeeeg gteagttgge tgeageagga
ttccccgccg ctgaacactg gaaagtgtat ctggtgacga tgctcatctc cttcgtctcc
gttgtccctt tcattatcta tgcagaagtg aaacgccgca tgaagcgcgt attcctgacg
tgtgttgcgc tgctgttgat tgccgaaatc gtactatggg gctccggtcc acacttctgg
gaactggtca tcggcgtaca gcttttcttc ctcgccttta atctcatgga agcc
414
<210> 1166
<211> 138
<212> PRT
<213> Homo sapiens
<400> 1166
Trp Val Val Pro Asp Thr Xaa Asn His Val Leu Asn Arg Ile Ser Gly
Met Val Lys Gly Cys Phe Ser Lys Val Leu Val Glu Pro Arg Leu Leu
            20
                                25
Lys Leu Asn Leu Thr Ile Met Cys Leu His Ile Leu Leu Met Ser Thr
                            40
Phe Val Ala Leu Pro Gly Gln Leu Ala Ala Ala Gly Phe Pro Ala Ala
                        55
Glu His Trp Lys Val Tyr Leu Val Thr Met Leu Ile Ser Phe Val Ser
Val Val Pro Phe Ile Ile Tyr Ala Glu Val Lys Arg Arg Met Lys Arg
Val Phe Leu Thr Cys Val Ala Leu Leu Leu Ile Ala Glu Ile Val Leu
                                105
                                                    110
Trp Gly Ser Gly Pro His Phe Trp Glu Leu Val Ile Gly Val Gln Leu
                                                125
                            120
Phe Phe Leu Ala Phe Asn Leu Met Glu Ala
   130
                        135
<210> 1167
<211> 464
<212> DNA
<213> Homo sapiens
<400> 1167
gtcgaccccg tgggcaagag tcgcggcccc tgacgataac ttcaccccgc cggccttgag
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ctgttgggac cggctggcta aggcctgggc accggtagcg gcctggtgga taccctcatg
tageogggtg acctgeetga ceatettegg caaaccagtg egeagttgtg tggtgaacte
attgacccct cgagacagtc gtgaggaacc gtcagcaagt tcgtcgatgc cgtcgtcgat
getettgeca gagtteggat cettgatege categeettg aeggecacee eegacecage
cogcacgccc agggcgtacc categgtcat egegtegegg acgatgggta ccaggtcgtg
gcattectge geggtgtgge ttegeaegea tegaegeagg aagteageet egeeeeggga
cagggettee ttactaagtt cegeggtttt ettteeegae gegt
<210> 1168
<211> 110
<212> PRT
<213> Homo sapiens
<400> 1168
Met Thr Asp Gly Tyr Ala Leu Gly Val Arg Ala Gly Ser Gly Val Ala
1
                                    10
Val Lys Ala Met Ala Ile Lys Asp Pro Asn Ser Gly Lys Ser Ile Asp
                                25
Asp Gly Ile Asp Glu Leu Ala Asp Gly Ser Ser Arg Leu Ser Arg Gly
                            40
Val Asn Glu Phe Thr Thr Gln Leu Arg Thr Gly Leu Pro Lys Met Val
Arg Gln Val Thr Arg Leu His Glu Gly Ile His Gln Ala Ala Thr Gly
Ala Gln Ala Leu Ala Ser Arg Ser Gln Gln Leu Lys Ala Gly Gly Val
                                    90
Lys Leu Ser Ser Gly Ala Ala Thr Leu Ala His Gly Val Asp
            100
                                105
<210> 1169
<211> 486
<212> DNA
<213> Homo sapiens
<400> 1169
nacgcgtgaa gggagcagaa cggacaccag ttactagtgg ctctggtcgg ggacagcctc
ctagagcett tetggecaat gggaacagga atageceggg getttetage tgetatggae
totgootgga tggtoogaag ttggtotota ggaacgagoo ctttggaagt gotggoagag
agggaaagta tttacaggtt gctgcctcag accaccctg agaatgtgag taagaacttc
240
agccagtaca gtatcgaccc tgtcactcgg tatcccaata tcaacgtcaa cttcctccgg
ccaagccagg tgcgccattt atatgatact ggcgaaacaa aagatattca cctggaaatg
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gagageetgg tgaatteeeg aaceaeeee aaattgaete geaatgagte tgtagetegt
tcaagcaaac tgctgggttg gtgccagagg cagacagatg gctatgcagg ggtaaacgtg
480
acagat
486
<210> 1170
<211> 159
<212> PRT
<213> Homo sapiens
<400> 1170
Arg Glu Gln Asn Gly His Gln Leu Leu Val Ala Leu Val Gly Asp Ser
1
                5
                                                      15
                                   10
Leu Leu Glu Pro Phe Trp Pro Met Gly Thr Gly Ile Ala Arg Gly Phe
Leu Ala Ala Met Asp Ser Ala Trp Met Val Arg Ser Trp Ser Leu Gly
                           40
Thr Ser Pro Leu Glu Val Leu Ala Glu Arg Glu Ser Ile Tyr Arg Leu
Leu Pro Gln Thr Thr Pro Glu Asn Val Ser Lys Asn Phe Ser Gln Tyr
                   70
                                       75
Ser Ile Asp Pro Val Thr Arg Tyr Pro Asn Ile Asn Val Asn Phe Leu
Arg Pro Ser Gln Val Arg His Leu Tyr Asp Thr Gly Glu Thr Lys Asp
           100
                               105
                                                  110
Ile His Leu Glu Met Glu Ser Leu Val Asn Ser Arg Thr Thr Pro Lys
                           120
                                              125
Leu Thr Arg Asn Glu Ser Val Ala Arg Ser Ser Lys Leu Leu Gly Trp
                       135
                                          140
Cys Gln Arg Gln Thr Asp Gly Tyr Ala Gly Val Asn Val Thr Asp
                   150
                                      155
<210> 1171
<211> 429
<212> DNA
<213> Homo sapiens
<400> 1171
acgcgttcaa caaagcacag aaccggagat gcagtgggag ccgagagcag gaagcgcgga
ggcagcgcca ggtgctggcg ctgcccgagg ccccgtgcca agtggggccc atagcagccg
actogotaga cootoccaaa acgoacacca ogogogacca ggaccgagag gooogcacgg
ccctgctagg ccacaaacac tccactgtct ccagggtaaa agacaaacac agcctcgctt
gtecetecaa qaqtacaace tetgtetgat gaaaaacaaa egaeecagag aggaggeage
tgccgggaca ctgcaggctg ggcccgccgc gcccttggag ggcaggtcaa aatcccggaa
420
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acctcctac
429
<210> 1172
<211> 118
<212> PRT
<213> Homo sapiens
<400> 1172
Met Gln Trp Glu Pro Arg Ala Gly Ser Ala Glu Ala Ala Pro Gly Ala
Gly Ala Ala Arg Gly Pro Val Pro Ser Gly Ala His Ser Ser Arg Leu
            20
                                 25
Ala Arg Pro Ser Gln Asn Ala His His Ala Arg Pro Gly Pro Arg Gly
                            40
                                                 45
Pro His Gly Pro Ala Arg Pro Gln Thr Leu His Cys Leu Gln Gly Lys
                        55
Arg Gln Thr Gln Pro Arg Leu Ser Leu Gln Glu Tyr Asn Leu Cys Leu
                                         75
65
                    70
Met Lys Asn Lys Arg Pro Arg Glu Glu Ala Ala Gly Thr Leu Gln
Ala Gly Pro Ala Ala Pro Leu Glu Gly Arg Ser Lys Ser Arg Asn Arg
            100
                                105
His Ser Val Gln Ala Asp
        115
<210> 1173
<211> 435
<212> DNA
<213> Homo sapiens
<400> 1173
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120
tactatgacg cctactacgg ctcggctcag aaagtccgta ccctcatcca acgcgacttc
gagaaagcat ggcagatgtg cgatgtgctc gtgtcaccgg ccacgccaac gactgccttc
eggetgggtg agegtactge tgaceegatg gegatgtace geteegatet atgeaeggte
ccggccaata tggccggaag tcccgcagga tctttcccga tcggtctatc agagaccgac
ggcatgcccg tcggcatgca ggtgatggcg ccaatcatgg cggacgatcg aatctaccga
420
gttggggccg ctcta
435
<210> 1174
<211> 145
<212> PRT
<213> Homo sapiens
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<400> 1174
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Thr Arg Gly Ala Gly Leu Gly Ala Glu Ala Lys Arg Arg Ile Ile Leu
Gly Thr Tyr Ala Leu Ser Ala Gly Tyr Tyr Asp Ala Tyr Tyr Gly Ser
                            40
Ala Gln Lys Val Arg Thr Leu Ile Gln Arg Asp Phe Glu Lys Ala Trp
Gln Met Cys Asp Val Leu Val Ser Pro Ala Thr Pro Thr Thr Ala Phe
                    70
                                        75
Arg Leu Gly Glu Arg Thr Ala Asp Pro Met Ala Met Tyr Arg Ser Asp
                                    90
Leu Cys Thr Val Pro Ala Asn Met Ala Gly Ser Pro Ala Gly Ser Phe
                                105
Pro Ile Gly Leu Ser Glu Thr Asp Gly Met Pro Val Gly Met Gln Val
                            120
Met Ala Pro Ile Met Ala Asp Asp Arg Ile Tyr Arg Val Gly Ala Ala
    130
Leu
145
<210> 1175
<211> 729
<212> DNA
<213> Homo sapiens
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caggggttct ttccaaagtt acagtccgat gtcttggcaa caggaccaac cagtaacaat
cgctgggtaa gtcggagtgc cactgcacag cgcaggaaag gacgccttcg ccagcattct
gagcatgttg ggctggacaa cgacttgagg gagaaatata tgcaagaggc acgaagttta
240
ggaaaaaacc tgaggcaacc caaactgtca gacctctctc ctgcagttat tgcacagacc
300
aactgtaaat tcgtagaagg cttattaaaa gaatgtagaa ataagacaaa gcgcatgttg
gtggagaaga tgggacatga agcggtggaa cttggccatg gagaagcaaa catcaccggc
420
ctggaggaga acaccttgat cgccagcctt tgtgacctgc tggagaggat atggagccat
ggcttgcagg tcaagcaggg gaagtcggtt ttgtggtcac atttaattcc ttttcaggac
540
agagaagaga accaagagcc ccttgcagaa tcaccagttg ccctcggacc agaaagaaaa
600
aaatctgact caggagttat gttgccaacg ctcagggtct ctcttattca ggacatgagg
catattcaaa acatgagtga gatcaagact gatgttggac gagctcgggc gtggataaga
720
ctgtctcta
729
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<210> 1176 <211> 243

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<213> Homo sapiens
<400> 1176
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Gly Lys Tyr Glu Gln Gly Phe Phe Pro Lys Leu Gln Ser Asp Val Leu
Ala Thr Gly Pro Thr Ser Asn Asn Arg Trp Val Ser Arg Ser Ala Thr
                                                45
                            40
Ala Gln Arg Arg Lys Gly Arg Leu Arg Gln His Ser Glu His Val Gly
                       55
Leu Asp Asn Asp Leu Arg Glu Lys Tyr Met Gln Glu Ala Arg Ser Leu
Gly Lys Asn Leu Arg Gln Pro Lys Leu Ser Asp Leu Ser Pro Ala Val
                                   90
                85
Ile Ala Gln Thr Asn Cys Lys Phe Val Glu Gly Leu Leu Lys Glu Cys
                              105
Arg Asn Lys Thr Lys Arg Met Leu Val Glu Lys Met Gly His Glu Ala
                           120
Val Glu Leu Gly His Gly Glu Ala Asn Ile Thr Gly Leu Glu Glu Asn
                       135
Thr Leu Ile Ala Ser Leu Cys Asp Leu Leu Glu Arg Ile Trp Ser His
                   150
                                       155
Gly Leu Gln Val Lys Gln Gly Lys Ser Val Leu Trp Ser His Leu Ile
               165
                                   170
Pro Phe Gln Asp Arg Glu Glu Asn Gln Glu Pro Leu Ala Glu Ser Pro
                              185
Val Ala Leu Gly Pro Glu Arg Lys Lys Ser Asp Ser Gly Val Met Leu
                           200
Pro Thr Leu Arg Val Ser Leu Ile Gln Asp Met Arg His Ile Gln Asn
                       215
                                           220
Met Ser Glu Ile Lys Thr Asp Val Gly Arg Ala Arg Ala Trp Ile Arg
                  230
                                       235
Leu Ser Leu
<210> 1177
<211> 581
<212> DNA
<213> Homo sapiens
<400> 1177
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cgtcgcacag ctgcgagagg tgggcattgc cgagtgaggc aacgatgtCt aaggcggaaa
gctcatcctc ggcagacggg aagactttgt cgtcggggat gttgtcaatg agagcgggga
cgtcgatctc ggtactgccc atggcgtcat gaaggatcgc gcgatacggg gcgacgaccc
```

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cgatgagggc gtcgtcgaat ccagcgatga tcgatacctc tctcggtagc acgtccgtgg
ccaacaggtg gtcgacttgg gcgggggcta gccatqtaat tgttccgagc acatggaggg
tggctgccag gaggcggatg gccggttctg gggcatcttt ggagatcttc agccggacat
cagtgggcag tccggccggg acttggcaga gggcctgggc gggatgggag cgctgggcga
cgacgaaacg ccccgacgcc gtaacgccgt gggcttggag atcgcaggtc cacttctctg
ggctttcacc ggcagagatc atggtgtgga ccaccattgt g
<210> 1178
<211> 192
<212> PRT
<213> Homo sapiens
<400> 1178
Met Val Val His Thr Met Ile Ser Ala Gly Glu Ser Pro Glu Lys Trp
                 5
                                    10
Thr Cys Asp Leu Gln Ala His Gly Val Thr Ala Ser Gly Arg Phe Val.
                                25
Val Ala Gln Arg Ser His Pro Ala Gln Ala Leu Cys Gln Val Pro Ala
                            40
Gly Leu Pro Thr Asp Val Arg Leu Lys Ile Ser Lys Asp Ala Pro Glu
                        55
                                            60
Pro Ala Ile Arg Leu Leu Ala Ala Thr Leu His Val Leu Gly Thr Ile
                    70
                                        75
Thr Trp Leu Ala Pro Ala Gln Val Asp His Leu Leu Ala Thr Asp Val
                                    90
Leu Pro Arg Glu Val Ser Ile Ile Ala Gly Phe Asp Asp Ala Leu Ile
                                105
Gly Val Val Ala Pro Tyr Arg Ala Ile Leu His Asp Ala Met Gly Ser
                            120
                                                125
Thr Glu Ile Asp Val Pro Ala Leu Ile Asp Asn Ile Pro Asp Asp Lys
    130
                        135
                                            140
Val Phe Pro Ser Ala Glu Asp Glu Leu Ser Ala Leu Asp Ile Val Ala
                    150
                                        155
Ser Leu Gly Asn Ala His Leu Ser Gln Leu Cys Asp Gly Val His Lys
                                   170
Lys Thr Val Phe Gly Cys Ser Cys Trp Ser Arg Ala Thr His His Ala
                                185
<210> 1179
<211> 597
<212> DNA
<213> Homo sapiens
<400> 1179
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gattgggget tetggaeatg etgecaeaag atgtetggaa aeteeagggg geaeetgeeg
120
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agaccctgcc ctgggaacgg ccggaagaat cccaaaacat gagattccgg tgcagctgag
180
ccccgccaat tcattgtctc tttcagtccc ttctgaaggc tgcatttggc aatgtgaccc
teggggtggg gaaggcatca gaggaataca ggctatggga egccagaggc agegteetgg
ggacaaagcc cacttettee catgeccagg getteeteat ggacecagca tggtggacgt
ggccctcaga cgtccatggg tggtggggga ggcacgtgct gtttggccct gtctctgctc
agagteteat aggaagatge atggteeaca caacagtgag teggeaggga gteeaggett
cccctcccaa ccagtggtgt tgagacgctt ggtttataac ccaagatccc ttgtcccatt
ggtgcctcct gaatctccca cctcccgcgg cacctgcatg gcctctacct gacgcgt
597
<210> 1180
<211> 105
<212> PRT
<213> Homo sapiens
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Met Gly Arg Gln Arg Gln Arg Pro Gly Asp Lys Ala His Phe Pro
                                    10
Cys Pro Gly Leu Pro His Gly Pro Ser Met Val Asp Val Ala Leu Arg
Arg Pro Trp Val Val Gly Glu Ala Arg Ala Val Trp Pro Cys Leu Cys
Ser Glu Ser His Arg Lys Met His Gly Pro His Asn Ser Glu Ser Ala
                        55
Gly Ser Pro Gly Phe Pro Ser Gln Pro Val Val Leu Arg Arg Leu Val
                    70
                                        75
Tyr Asn Pro Arg Ser Leu Val Pro Leu Val Pro Pro Glu Ser Pro Thr
                85
                                    90
Ser Arg Gly Thr Cys Met Ala Ser Thr
            100
                                105
<210> 1181
<211> 352
<212> DNA
<213> Homo sapiens
<400> 1181
gtcgactacc tcgatgtttc cccgcgtcag atggtctccg tggctactgc catgattccg
60
ttcctcgagc acgacgacgc taaccgtgcc ctgatgggtg cgaacatgca gcgtcaggct
gtgccgctgc tgcgttcgga ggctccgttc gtcggtaccg gtatggagca gcgtgctgct
180
tacgacgccg gcgatgtcat tgtcgcttcg gccacaggtg tggtcgagac cgtgtcggca
ggetteatea ceateatgga egatgaggge cagegecaea cetacetget gegeaagtte
300
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gagegeacea accagggeae etgetacaae cagaageeae tgttgaegag gg
352
<210> 1182
<211> 117
<212> PRT
<213> Homo sapiens
<400> 1182
Val Asp Tyr Leu Asp Val Ser Pro Arg Gln Met Val Ser Val Ala Thr
Ala Met Ile Pro Phe Leu Glu His Asp Asp Ala Asn Arg Ala Leu Met
Gly Ala Asn Met Gln Arg Gln Ala Val Pro Leu Leu Arg Ser Glu Ala
Pro Phe Val Gly Thr Gly Met Glu Gln Arg Ala Ala Tyr Asp Ala Gly
Asp Val Ile Val Ala Ser Ala Thr Gly Val Val Glu Thr Val Ser Ala
                    70
                                        75
Gly Phe Ile Thr Ile Met Asp Asp Glu Gly Gln Arg His Thr Tyr Leu
                85
                                    90
Leu Arg Lys Phe Glu Arg Thr Asn Gln Gly Thr Cys Tyr Asn Gln Lys
            100
                                105
Pro Leu Leu Thr Arg
        115
<210> 1183
<211> 432
<212> DNA
<213> Homo sapiens
<400> 1183
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cetetteque ectqueequt cacciquitet giccigetea cetectecag gaageetgee
tggccttctc catgctgatg ggcgtggccc ttgtccctgc agccatgcat tgacctccgt
180
ggctcctgga ggccaggcca cgtcctcatc ccctctgggt gagtgagagg cacagcctgg
gtgcgtgggg ccgtggcggc tccgaggcgc caccgctgtg tcctctcatg agtgggtgcc
gtccaggtct gtcctgggct ggctgcgagg aggaggttgg cctcgcgcgg ccatgtgcgt
gacagtggag acatcgccag cctcctgctt gcacagctga cggcagcccc tctctcca
420
gccatgtccc ca
432
<210> 1184
<211> 141
<212> PRT
<213> Homo sapiens
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<400> 1184
  Met Ala Gly Glu Arg Gly Ala Ala Val Ser Cys Ala Ser Arg Arg Leu
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 Ala Met Ser Pro Leu Ser Arg Thr Trp Pro Arg Glu Ala Asn Leu Leu
             20
 Leu Ala Ala Ser Pro Gly Gln Thr Trp Thr Ala Pro Thr His Glu Arg
                              40
 Thr Gln Arg Trp Arg Leu Gly Ala Ala Thr Ala Pro Arg Thr Gln Ala
                          55
 Val Pro Leu Thr His Pro Glu Gly Met Arg Thr Trp Pro Gly Leu Gln
                      70
 Glu Pro Arg Arg Ser Met His Gly Cys Arg Asp Lys Gly His Ala His
                                      90
 Gln His Gly Glu Gly Gln Ala Gly Phe Leu Glu Glu Val Ser Arg Thr
                                 105
 Glu Gln Val Ser Gly Gln Gly Arg Gly Arg Gly Ser Ala Gly Glu
                             120
 Asp Gly Leu Thr Thr Arg Leu Asp Gln Arg Pro Glu Gly
     130
                         135
 <210> 1185
 <211> 423
 <212> DNA
 <213> Homo sapiens
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 gaattacgcg gcaaatatgt attgttgggt gaaggtgtac ggggctctct atctaaacaa
 120
gtcatcaata aataccaatt atccgagggt catgaaccac aaaagttcgg ccttggctta
aaagaaattt gggaaataga cccagaaaaa cacaaagaag gcagagtcag tcataccatg
ggctggccat taaatggcaa tgctggcggc ggttctttta tttatcatgc agaaaacaat
caagtettta teggetttgt ggtgeatett aattaegeea accettaeet ateceettae
caagaatttc aacgctttaa acaccatccg attatcgcgg agctattaac tggcggtaaa
420
cgc
423
<210> 1186
<211> 141
<212> PRT
<213> Homo sapiens
<400> 1186
Thr Gly Glu Phe Gly Leu Asn Ser Asp Gly Thr Pro Gly Pro Ser Tyr
Glu Pro Gly Met Glu Leu Arg Gly Lys Tyr Val Leu Leu Gly Glu Gly
Val Arg Gly Ser Leu Ser Lys Gln Val Ile Asn Lys Tyr Gln Leu Ser
```

```
40
                                                 45
Glu Gly His Glu Pro Gln Lys Phe Gly Leu Gly Leu Lys Glu Ile Trp
                        55
                                             60
Glu Ile Asp Pro Glu Lys His Lys Glu Gly Arg Val Ser His Thr Met
                    70
Gly Trp Pro Leu Asn Gly Asn Ala Gly Gly Gly Ser Phe Ile Tyr His
                                     90
Ala Glu Asn Asn Gln Val Phe Ile Gly Phe Val Val His Leu Asn Tyr
                                 105
Ala Asn Pro Tyr Leu Ser Pro Tyr Gln Glu Phe Gln Arg Phe Lys His
                            120
His Pro Ile Ile Ala Glu Leu Leu Thr Gly Gly Lys Arg
    130
                        135
<210> 1187
<211> 387
<212> DNA
<213> Homo sapiens
<400> 1187
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aaggtccagg gctataatgc aatagatggc atagtcggtg ggaacttaga agatatggta
gtacccactg ctcgaatttc tcctcaagca acatcaagtg ttgatttaaa agtgaatctt
aatteegaag gtgaggatgt geegeettat attegagegg aetttgatee ageeaateea
gatacttatg actatactca gacccaaacg gttgcggatg ggagtggtaa taatcattta
300
attagttatt actatgctaa aagtgatgta gcaaatacct atcaggttta tgccacggta
gatgggaagt cgactgatga taccggt
387
<210> 1188
<211> 129
<212> PRT
<213> Homo sapiens
<400> 1188
Thr Arg Ala Gly Glu Phe Lys Leu Asn Ala Asp Gly Asn Leu Val Thr
Asn Ser Gly Ala Lys Val Gln Gly Tyr Asn Ala Ile Asp Gly Ile Val
                                25
Gly Gly Asn Leu Glu Asp Met Val Val Pro Thr Ala Arg Ile Ser Pro
                            40
Gln Ala Thr Ser Ser Val Asp Leu Lys Val Asn Leu Asn Ser Glu Gly
Glu Asp Val Pro Pro Tyr Ile Arg Ala Asp Phe Asp Pro Ala Asn Pro
                    70
                                        75
Asp Thr Tyr Asp Tyr Thr Gln Thr Gln Thr Val Ala Asp Gly Ser Gly
                85
Asn Asn His Leu Ile Ser Tyr Tyr Tyr Ala Lys Ser Asp Val Ala Asn
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105
Thr Tyr Gln Val Tyr Ala Thr Val Asp Gly Lys Ser Thr Asp Asp Thr
                            120
Gly
<210> 1189
<211> 330
<212> DNA
<213> Homo sapiens
<400> 1189
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ctgggtgctg gtttcattgg cggcatcgtt gcaggttttc tggccggtta cagcgccaag
gccattgccc gctgggcacg gctgcccagc agcctggatg cgctcaaacc gattctgatc
atttegetge tggccageet gttcactggg ttggtgatga tetacgtggt cggccageeg
gtggeggcca tgctcggagg cctgacacac tttctcgaca gcatgggtac caccaacgcc
attctcctgg gcntgttgct cggcggctag
330
<210> 1190
<211> 109
<212> PRT
<213> Homo sapiens
<400> 1190
Ser Ile Ala Asp Arg Pro Gly Leu Ala Pro Gly Met Ile Gly Gly Leu
Leu Ala Ser Thr Leu Gly Ala Gly Phe Ile Gly Gly Ile Val Ala Gly
Phe Leu Ala Gly Tyr Ser Ala Lys Ala Ile Ala Arg Trp Ala Arg Leu
                            40
Pro Ser Ser Leu Asp Ala Leu Lys Pro Ile Leu Ile Ile Ser Leu Leu
                                            60
                       55
Ala Ser Leu Phe Thr Gly Leu Val Met Ile Tyr Val Val Gly Gln Pro
                                       75
Val Ala Ala Met Leu Gly Gly Leu Thr His Phe Leu Asp Ser Met Gly
               85
Thr Thr Asn Ala Ile Leu Leu Gly Xaa Leu Leu Gly Gly
                                105
           100
<210> 1191
<211> 351
<212> DNA
<213> Homo sapiens
<400> 1191
cggccgacga tgtgcggtga gcaagagatt tggagagcca tgatgacgtc agcagacaaa
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gcagggacta acggacagac catgcagaca ccqccggtgg tgtcgccgca ggactgggag gcagecegte ageaactget egtgaaqqaa aaqqegcata eeegtgeeeq egacgcaete geegeegaac ggaggegeat geegtggatg gaagtgacaa aaacetaege attegaggeg ccctcgggca aggccagtct gctcgatctg ttccagggcc ggaagcagct gatcctgtac egggeettet tegageeggg egtgttegge tqqeeeqaee atgeetgeeg e 351 <210> 1192 <211> 114 <212> PRT <213> Homo sapiens <400> 1192 Met Cys Gly Glu Gln Glu Ile Trp Arg Ala Met Met Thr Ser Ala Asp Lys Ala Gly Thr Asn Gly Gln Thr Met Gln Thr Pro Pro Val Val Ser Pro Gln Asp Trp Glu Ala Ala Arg Gln Gln Leu Leu Val Lys Glu Lys Ala His Thr Arg Ala Arg Asp Ala Leu Ala Ala Glu Arg Arg Met Pro Trp Met Glu Val Thr Lys Thr Tyr Ala Phe Glu Ala Pro Ser Gly 70 75 Lys Ala Ser Leu Leu Asp Leu Phe Gln Gly Arg Lys Gln Leu Ile Leu 85 90 Tyr Arg Ala Phe Phe Glu Pro Gly Val Phe Gly Trp Pro Asp His Ala 100 105 110 Cys Arg <210> 1193 <211> 722 <212> DNA <213> Homo sapiens <400> 1193 ggatcccagc ctccagatcc catcttqtaq ctcttctttc tctacactna ggttqctccc egacttagga egeceagttt gtacteagtg tttgetettt tatggeagag cetetgeact eccageetee tggeceette tgtacatgat ttteettgtg gecaeteeat geatttttet tggctcagga cttagtgggc ctccatggga cttggtacct ctacttgttc ccttctggaa tetgtaactt tgtgtteece accattettt cetttatgaa eegatggtge aacageatga ctacctgaaa ttcttagtca ctcccagctg ctttagtgga gggaaaatgc ccacagcaca ggaaatagtc ctgcccttcg agagaggcca ggggatggga gcgtgtccag agaagggcga 420

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gttccatgag gaggattatg ttggtgtgtg tagtcccctg gttcagagtt gtccagaaat
540
agctcagtgt aaggaacaat tttccaaaga tcaaaagagc tgtctcaaga tagcagtgcg
ttcccagccc ctacaggtgt atacagcaca aagggaggga ccccctagtg tggctgtcac
agagggaagt ggacgtcctg tggtttgacc ccaccagatg gctttagaga tctgggcccg
720
ag
722
<210> 1194
<211> 134
<212> PRT
<213> Homo sapiens
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Met Val Gln Gln His Asp Tyr Leu Lys Phe Leu Val Thr Pro Ser Cys
 1
                                                         15
Phe Ser Gly Gly Lys Met Pro Thr Ala Gln Glu Ile Val Leu Pro Phe
                                 25
Glu Arg Gly Gln Gly Met Gly Ala Cys Pro Glu Lys Gly Asp Gly Leu
                            40
Met Lys Gly Gly His Ser Ala Arq Glu Glu Gly Ala Arq Thr Leu Ser
Val Leu Phe His Glu Glu Asp Tyr Val Gly Val Cys Ser Pro Leu Val
                    70
                                         75
Gln Ser Cys Pro Glu Ile Ala Gln Cys Lys Glu Gln Phe Ser Lys Asp
                                     90
Gln Lys Ser Cys Leu Lys Ile Ala Val Arg Ser Gln Pro Leu Gln Val
                                105
Tyr Thr Ala Gln Arg Glu Gly Pro Pro Ser Val Ala Val Thr Glu Gly
                            120
                                                 125
Ser Gly Arg Pro Val Val
    130
<210> 1195
<211> 391
<212> DNA
<213> Homo sapiens
<400> 1195
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gtgagtaatg ggggcggcgc ggccagacgc gctcccagcc tcctggcgag agtgctgccc
ggtttcccgg gggcacggga gtgtgtctag gaggggaggc caggatcctt cctcgagtcc
180
tgtcctgaac aaaagaaaac gaggtgggtg gtgcttgaac ggccctgttt actctgcaga
tagccgaact ggtaggactc cggcgcgccc tatttatctt gattggctct gcctgaaggc
300
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aagcgttaat cccgtccaac ctgtatcact gcgaagagct cgttcgggag cgctttttgg
aaatgcagat tottagcccc cacccagate t
391
<210> 1196
<211> 102
<212> PRT
<213> Homo sapiens
<400> 1196
Met Gly Ala Ala Arg Pro Asp Ala Leu Pro Ala Ser Trp Arg Glu Cys
1
Cys Pro Val Ser Arg Gly His Gly'Ser Val Ser Arg Arg Gly Gly Gln
                                25
Asp Pro Ser Ser Pro Val Leu Asn Lys Arg Lys Arg Gly Gly Trp
Cys Leu Asn Gly Pro Val Tyr Ser Ala Asp Ser Arg Thr Gly Arg Thr
Pro Ala Arg Pro Ile Tyr Leu Asp Trp Leu Cys Leu Lys Ala Ser Val
Asn Pro Val Gln Pro Val Ser Leu Arg Arg Ala Arg Ser Gly Ala Leu
                85
                                    90
Phe Gly Asn Ala Asp Ser
            100
<210> 1197
<211> 386
<212> DNA
<213> Homo sapiens
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tggcagcaag atgaaatcat cgttaacgta caaggggatg aaccetttet geetgttgca
120
cttattcatg ccacggttaa agcgttagcc gatgatgctg aatctgaaat ggccacgatt
gcctgtgcga ttgataacgt agcagagctg tttaacccaa atgtagttaa agtcgtttgt
gatgaaaaac agcgcgcctt gtatttcagt cgtgcgccta tgccatggga ccgtaatggt
tttatggaaa aaacagacga tcaagcgtta ccagcggatt ttcctgcgtt gcgtcatatt
ggtccgtatg tttaccgcac gacatn
386
<210> 1198
<211> 128
<212> PRT
<213> Homo sapiens
<400> 1198
Thr Arg Asp Asp His Glu Asn Gly Thr Glu Arg Leu Ala Glu Val Ala
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1
                  5
                                     10
Ser Val Met Gly Trp Gln Gln Asp Glu Ile Ile Val Asn Val Gln Gly
                                 25
Asp Glu Pro Phe Leu Pro Val Ala Leu Ile His Ala Thr Val Lys Ala
                             40
Leu Ala Asp Asp Ala Glu Ser Glu Met Ala Thr Ile Ala Cys Ala Ile
                         55
Asp Asn Val Ala Glu Leu Phe Asn Pro Asn Val Val Lys Val Val Cys
                                         75
Asp Glu Lys Gln Arg Ala Leu Tyr Phe Ser Arg Ala Pro Met Pro Trp
                85
                                     90
Asp Arg Asn Gly Phe Met Glu Lys Thr Asp Asp Gln Ala Leu Pro Ala
                                105
Asp Phe Pro Ala Leu Arg His Ile Gly Pro Tyr Val Tyr Arg Thr Thr
                                               125
<210> 1199
<211> 318
<212> DNA
<213> Homo sapiens
<400> 1199
acgegttcag egtcatgtac agecceggge eqqtcaattt qatqqqeetc aatqeeqqqe
ttacgggcaa attgcgtcgc tccagcggtt tctacatcgg cgtggggtgc gcgatgctgc
tgatggtegg getggttggg etcaeeggeg aagegateat etceeaggeg gegetgeegt
atatttettt gattggeggg gtgtacaege tgtacetege etaceaggtg tteaeegeae
gtaccgaagt ggatgacgcc ccaagcgcgc ctgccaagac cttgaccttc tggaatggcc
tggtgatcca gttgctcc
318
<210> 1200
<211> 101
<212> PRT
<213> Homo sapiens
<400> 1200
Met Tyr Ser Pro Gly Pro Val Asn Leu Met Gly Leu Asn Ala Gly Leu
                                    10
Thr Gly Lys Leu Arg Arg Ser Ser Gly Phe Tyr Ile Gly Val Gly Cys
                                25
Ala Met Leu Leu Met Val Gly Leu Val Gly Leu Thr Gly Glu Ala Ile
Ile Ser Gln Ala Ala Leu Pro Tyr Ile Ser Leu Ile Gly Gly Val Tyr
                     . 55
Thr Leu Tyr Leu Ala Tyr Gln Val Phe Thr Ala Arg Thr Glu Val Asp
                                        75
Asp Ala Pro Ser Ala Pro Ala Lys Thr Leu Thr Phe Trp Asn Gly Leu
                                    90
Val Ile Gln Leu Leu
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120

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gattcaagac ttggagtaga atatcctcct aaatccgttg caaagtttgc agctgttgct
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cttcagcccc tgctqaatgc acgtgcatcc aacaaccctg gatqaatqaa tgaatgactg
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Gly Tyr His Ala Pro Glu Tyr Ala Met Thr Gly Gln Leu Ser Ser Lys
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Ser Asp Val Tyr Ser Phe Gly Val Gly Leu Leu Glu Leu Leu Thr Gly
                            40
Arg Lys Pro Val Asp Leu Pro Leu Pro Arg Gly Gln Gln Ser Leu Val
    50
                        55
                                            60
Thr Trp Ala Thr Pro Arg Leu Cys Glu Asp Lys Val Arg Gln Cys Val
Asp Ser Arg Leu Gly Val Glu Tyr Pro Pro Lys Ser Val Ala Lys Phe
                85
                                    90
Ala Ala Val Ala Ala Leu Cys Val Gln Tyr Glu Ala Asp Phe Arg Pro
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Asn Met Ser Ile Val Val Lys Ala Leu Gln Pro Leu Leu Asn Ala Arg
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                            120
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Ala Ser Asn Asn Pro Gly
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120
taacaagaac caagccatcc tggacacaga cggccggggt tgtgcgaacg gaacgttagt
ctatcaatgt gttgeggaac gattcaaggg atgetggeec ceeccateae ttgeecaate
aagatgtgga gggaatetgt etgegeagaa eetggatete gtggttgtae gaegttgtee
300
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cetteteget eggacgeege teatgeteeg ecaegteget gagegaqtqa caaqqtatee
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Thr Asp Gly Arg Gly Cys Ala Asn Gly Thr Leu Val Tyr Gln Cys Val
Ala Glu Arg Phe Lys Gly Cys Trp Pro Pro Pro Ser Leu Ala Gln Ser
Arg Cys Gly Gly Asn Leu Ser Ala Gln Asn Leu Asp Leu Val Val Val
Arg Arg Cys Pro Leu Leu Ala Arg Thr Pro Leu Met Leu Arg His Val
Ala Glu Arg Val Thr Arg Tyr Pro Gly Thr Met Arg Met Val Ser Thr
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Glu Ala Leu Ala Asn Arg Lys
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caggggtgct caccacctag tgagtttcag ggacactcca catgtcccag caagtcttat
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Ser His Val Trp Asp Asn Gln Gly Cys Ser Pro Pro Ser Glu Phe Gln
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35
                            40
                                                 45
Gly His Ser Thr Cys Pro Ser Lys Ser Tyr Gln His Leu Ser Trp Leu
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Glu Tyr Ala Phe Thr Pro Ala Ser Ala Gln Gly Gly Phe Ala Gly Ala
                            40
Thr Val Trp Met Ala Ile Arg Phe Gly Val Ala Arg Gly Val Phe Ser
                        55
                                            60
Asn Glu Ala Gly Leu Gly Ser Ala Pro Ile Ala His Ala Ser Ala Gln
                    70
                                        75
Thr Asn Glu Pro Val Arg Gln Gly Leu Val Ala Met Leu Gly Thr Phe
                                    90
Leu Asp Thr Leu Ile Ile Cys Thr Gly Leu Val Ile Val Ile Ser Gly
            100
                                105
Ala Trp Thr Glu Gly Leu Ser Gly Ala Ala Leu Thr Ser Ala Ala Phe
Asn Leu Ala Leu Pro Gly Trp Gly Gly Tyr Leu Val Ala Ile Ser
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tacaacgagg ctgggtcact catcagegeg aeggggecce gcacacaaca taactggact
cacgacgcct atggccggct caccagccac gccacatccg gaaccgacac caccttcgcc
tgggaccagg aaggccacct ggcgcagacg tgtacgcgtg cacacgggca tgccactgcc
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480
caggtacgag tggactggga cetegtgace ggageeecca cetegattga tggtegteet
gtgcttcccc tgcccggagg acgcatcctc ggcgccacac ccatcggcga taccaaccta
tggogtgagg tcatgcccac cgaccctgac aacccttacc agcccgccac ggccactatt
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720
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ccccgcccgc cggcgcgcta tgggccaaca acccctacga ctacgccaac aacaaccccc
teacceteae egateetete gggaceeaee eegteaeega egaceaaetg geacteetea
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acatcaccga tccgatcagc cactggtggg ccacccacaa agaccggatc ctctcccggg
acttectgat eggtgeegge etegteateg geggtatege gtageggeea egggegtagg
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С
1141
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Thr Arg Val Ala Arg Asp Ala Gln Gly Arg Val Thr Gly Ile Glu Gly
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Pro Ser Gly Arg Trp Ser Tyr Gly Tyr Asn Glu Ala Gly Ser Leu Ile
                            40
Ser Ala Thr Gly Pro Arg Thr Gln His Asn Trp Thr His Asp Ala Tyr
Gly Arg Leu Thr Ser His Ala Thr Ser Gly Thr Asp Thr Thr Phe Ala
                    70
                                        75
Trp Asp Gln Glu Gly His Leu Ala Gln Thr Cys Thr Arg Ala His Gly
                                    90
His Ala Thr Ala Thr Gln Tyr Arg Tyr Asp Ala Ala Gly Arg Arg Val
                                105
Ser Ala Thr Ser Ser Asp Gly Gln Glu Glu Arg Tyr Ser Trp Asp Gly
                            120
                                                125
        115
Arg Gly Trp Leu Ser Asp Ile Thr Thr Asp Ala Thr Thr Val Ser Thr
                       135
                                            140
His Val Asp Ala Leu Gly Arg Ala Ser Arg Ile Thr Thr Lys Gly Gln
                    150
                                       155
Gln Val Arg Val Asp Trp Asp Leu Val Thr Gly Ala Pro Thr Ser Ile
                165
                                    170
Asp Gly Arg Pro Val Leu Pro Leu Pro Gly Gly Arg Ile Leu Gly Ala
            180
                                185
Thr Pro Ile Gly Asp Thr Asn Leu Trp Arg Glu Val Met Pro Thr Asp
                            200
Pro Asp Asn Pro Tyr Gln Pro Ala Thr Ala Thr Ile Glu Gly Val Pro
                        215
                                            220
Glu Thr Ile Arg Met Ala Gly Asn Thr Leu Val Val Asp Gly His Pro
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                                        235
Trp Trp Gly Arg Ala Ser Thr Thr Gln Leu Pro Pro Pro Ser Cys Leu
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                                    250
                                                        255
Leu Thr Arg
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agtogoogge gtgggtgcgt ggaagaagta ccgcggcacg accttcggcg ggctgctccc
gtegetgtee cteggeeteg tgetegegtt categtgetg aacaaggteg getegeegea
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317
<210> 1216
<211> 102
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Pro His Leu Leu Arg Cys Arg Val Asn Asp Val Ser Gly Asp Ser Gln

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Trp Ile Glu Met Arg Gly Ser Val Thr Gly Trp Asp Ser Arg His Arg
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Ala Gln Met Val Arg Gly Thr Phe Glu Arg Ile Asn His Leu Ile Asp
                        55
                                            60
Ala Glu Asn Glu Leu Ile Ala Ala Arg Glu Asp Ala Gln Arg Arg Glu
                    70
                                        75
Leu Ile Leu Ser Ala Leu Leu Asn Asn Ile Pro Asp Pro Val Trp Ser
Lys Asp Glu Ser Gly Arg Tyr Leu Asp Cys Asn His Ala Phe Cys Leu
                                105
Phe Asn Gly Leu Glu Gln Ser Asp Val Gln Gly Gln Lys Asp Ser Glu
                            120
                                                125
       115
Leu Asn Leu Asp Asn Asn Gly Gln Tyr Tyr Gln Asp Met Gly Glu
                      135
Val Leu Ala Arg Gly Glu Ile Phe His Glu His Cys Trp Gly Thr Pro
                  150
                                       155
Ala Asp Gly Ser Asp Asn Arg Leu Phe Glu Val Tyr Arg Val Pro Ile
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               165
Lys Glu Pro Thr Val Asn
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gttcccagac caccctccct cttttcaaac taaaacaggg atggctctta accaccaccc
aaaggcaagg ggggtcttaa aacccaaacc aagtggggca ggggccagcc tcttcaggag
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300
tggggggc
308
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Ile Thr Lys Thr Ile Leu Leu Val Phe Ser Ser Ser Thr Gly Leu Trp
           20
                               25
Lys Phe Pro Asp His Pro Pro Ser Phe Gln Thr Lys Thr Gly Met Ala
                            40
Leu Asn His His Pro Lys Ala Arg Gly Val Leu Lys Pro Lys Pro Ser
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 Gly Ala Gly Ala Ser Leu Phe Arg Arg Ala Gln Pro Cys Ser Leu Cys
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                                          75
 Pro Phe Gly Lys Asp Arg Glu Leu Glu Leu Trp Val Gly Gly
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 180
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 aggatgcaca cccggtggcc ctgtggtgtg aggcctcagc aaacacggtc agaagatgaa
 300
 cacacagaga cccgcccgtc ggaaggagag gagggagegg atacggaggc ccacgtgcca
 360
 gaagggteee ttgeagtggt gtggttatgt geetgeaate ceagagtgte etegaaggae
 ctcagatcta acgagetcag ceggeagetg caegtgggae cagecetetg agetteaett
 gttttcctct gtgccatcag aaaccaatac gaagataaaa tgggaaaaaa aaaaatccca
 540
 ttcacggcac agcctgccga gaaacgcgt
 569
· <210> 1222
 <211> 91
 <212> PRT
 <213> Homo sapiens
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 Arg Arg Pro Thr Cys Gln Lys Gly Pro Leu Gln Trp Cys Gly Tyr Val
                                 25
 Pro Ala Ile Pro Glu Cys Pro Arg Arg Thr Ser Asp Leu Thr. Ser Ser
 Ala Gly Ser Cys Thr Trp Asp Gln Pro Ser Glu Leu His Leu Phe Ser
 Ser Val Pro Ser Glu Thr Asn Thr Lys Ile Lys Trp Glu Lys Lys
 Ser His Ser Arg His Ser Leu Pro Arg Asn Ala
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<211> 450

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<213> Homo sapiens
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gtactttcag atgtgttgcc tggtgttggc caaggccggt gggttctcgg cgaaactgca
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ggcagccaat tcacggacgt aacggtggtc ctgccaccac ccgactcgcc cctcctctc
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<213> Homo sapiens
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Ala His Arg Leu Leu Cys Ala His Arg Glu Gly Pro Tyr Gly Val Asp
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Glu Trp Ser Gln Arg Met Val Thr Val Leu Ser Asp Val Leu Pro Gly
                            40
Val Gly Gln Gly Arg Trp Val Leu Gly Glu Thr Ala Ile Val Thr His
                        55
Asn Leu Ala Gln Leu Gly Val Asn Asn Gly Asp Cys Gly Val Ile Val
                    70
                                        75
Glu Thr Arg Pro Val Pro Thr Ile Ala Leu Pro Gly Pro Gly Val
                                    90
Pro Arg Arg Leu Pro Cys Ser Leu Ile Pro Ser Leu Gln Pro Leu Gln
           100
                               105
Ala Met Thr Ile His Lys Ala Gln Gly Ser Gln Phe Thr Asp Val Thr
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                                               125
Val Val Leu Pro Pro Pro Asp Ser Pro Leu Leu Ser Arg Glu Leu Leu
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Tyr Thr Ala Ile Thr Arg
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cccagggatc aggggttgac ccgaccctgt catcatccca ttctacaaat gaggacactg
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436
<210> 1226
<211> 139
<212> PRT
<213> Homo sapiens
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Lys Thr Gln Ser Pro Pro Lys Val Arg Ser Arg Lys Lys Pro Asp Pro
Asp Gln Met Lys Gly Pro Gly Lys Phe Leu Glu Lys Arg Leu Leu Lys
Cys Leu Leu Ala Gly Ile Thr Val Ser Trp Gly Phe Ala His Ser Ile
                    70
Phe Met Ala Phe His Asn Asp Pro Arg Thr Asp Pro Glu Lys Pro Arg
                                    90
                85
Asp Gln Gly Leu Thr Arg Pro Cys His His Pro Ile Leu Gln Met Arg
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Thr Leu Arg Pro Gly Glu Lys Gly Gly Val Asp Gly Thr Arg Trp Pro
                            120
Gly Ser Lys Thr Gln Arg Leu Glu Cys Ala His
                        135
    130
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gacaaagcac gtacacgtaa gatgggcggt acaggactag gtctagctat ttccaaagag
180
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attqtcqaaq cacataatgg ccgtatttgg gcaaatagtg tcgaaggaca aggtacatct

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qqtatqqaac ttctcacctq atctatcaaa tgctqatagt acgtcatcag ataataagaa
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Arg Ile Lys Asp Asn Gly Ile Gly Ile Pro Ile Asn Lys Val Asp Lys
                                25
Ile Phe Asp Arg Phe Tyr Arg Val Asp Lys Ala Arg Thr Arg Lys Met
                            40
Gly Gly Thr Gly Leu Gly Leu Ala Ile Ser Lys Glu Ile Val Glu Ala
                        55
His Asn Gly Arg Ile Trp Ala Asn Ser Val Glu Gly Gln Gly Thr Ser
                                        75
Ile Phe Ile Thr Leu Pro Cys Glu Ile Ile Glu Asp Gly Asp Trp Asp
                85
                                    90
                                                         95
Glu
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Val Gly Arg Asp Trp Asp Pro Ser Ser Thr Glu Gly Gly Ser Ser Pro
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Leu Ile Cys Pro Asp Ser Ser Ala Arg Pro Arg Val Lys Ser Ser Tyr
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                                   90
Asn Trp Pro Arg Ala Ile Arg Cys Thr Gln Cys Leu Ser Gln Arg Arg
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Thr Arg Ser Pro Thr Glu Ser Pro Gln Ser Ser Gly Ser Gly Ser Arg
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Pro Val Ala Phe Ser Val Asp Pro Cys Glu Glu Tyr Asn Asp Arg Asn
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Lys Leu Asn Thr Arg Thr Gln His Trp Thr Cys Ser Val Cys Thr Tyr
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ser	Lys	GIU	GIU		Glu	vai	Asp	Phe	_	Lys	Leu	Lys	GIn		-
7.00	N ~~~	Mot	T 1.00	245	Th-	7.00	T	T	250	T		77-	G	255	
ASII	Arg	Mec	260	Lys	Thr	Asp	пр	265	Pne	ren	ASII	Ala	270	vai	GIY
Val	Va I	Glu		Acn	Leu	Δ Ι=	λla		G111	חות	T1	Tvc		50×	C111
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GIU	Val	neu	ASP	405	rap	Vai	GIII	пуs	410	Deu	GIU	Giu	GIU	415	PIO
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Tyr	Ala	Leu	Trp	Asn	Arg	Thr	Ala	Gly	Asp	Cys	Leu	Leu	Asp	Ser	Val
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Leu	Gln	Ala	Thr	Trp	Gly	Ile	Tyr	Asp	Lys	Asp	Ser	Val	Leu	Arg	Lys
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465					470				_	475					480
Trp	Lys	Asp	Trp		Ser	Trp	Tyr	Ser		Ser	Phe	Gly	Leu		Phe
C	•	•	0 1	485	~ 1.		~1	~1	490					495	
ser	Leu	Arg		GIU	Gln	Trp	GIN		Asp	Trp	Ala	Phe		Leu	Ser
T 011	77-	C	500	D	~1	21.	C	505	C1	~1	T	***	510	Dha	17 1
Leu	Ald	515	GIII	PIO	Gly	Ald	520	Leu	GIU	GIII	inr	525	ire	Pne	vai
Len	A1=		Tla	T.e.11	Arg	Δτα		Tla	Tla	V=1	Tur		172 l	Lve	Tur
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Tvr		Ser	Phe	Ara	Gly		Thr	Leu	Glv	Tvr		Ara	Phe	Gln	Glv
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Lys Leu Leu His Val His Phe Leu Ser Ala Gln Glu Leu Gly Asn Glu
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Glu Gln Gln Glu Lys Leu Leu Arg Glu Trp Leu Asp Cys Cys Val Thr
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Phe Leu Gly Gly Glu Met Ile Glu Val Val Arg Met Glu Gly Ser
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Thr Tyr Ala Glu Pro Pro His Arg Phe Glu Ala Gly Thr Pro Pro Ile
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Pro Gly Ile Gln Ser Leu Met His Glu Phe Tyr Asp Val Ala Asn Pro
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Val Gly Asn Pro Gly Ser Val Leu Thr Gln Tyr Trp Ser Leu Leu Asn
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Val Phe Glu Gln Phe Gln Phe Met Asn Lys Lys Thr Gln Pro His Pro
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Leu Glu Trp Asn Ser Phe Thr Glu Asp Lys Asn Ile Glu Lys Pro Gln
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Cys His Ile Lys Gln Ile Phe Thr His Pro His Leu Glu Leu Asn Pro
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Asp Phe His Pro Lys Ile Lys Asp Tyr Tyr Cys Glu Val Pro Phe Asp
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Lys Glu Phe Ile Asp Asn Glu Met Ile Val Ile Leu Gly Gln Met Asp
                                             60
Ser Pro Thr Gln Ile Phe Glu His Val Phe Leu Gly Ser Glu Trp Asn
                    70
                                         75
Ala Ser Asn Leu Glu Asp Leu Gln Asn Arg Gly Val Arg Tyr Ile Leu
                                     90
Asn Val Thr Arg Glu Ile Asp Asn Phe Phe Pro Gly Val Phe Glu Tyr
His Asn Ile Arg Val Tyr Asp Glu Glu Ala Thr Asp Leu Leu Ala Tyr
                             120
Trp Asn Asp Thr Tyr Lys Phe Ile Ser Lys Ala Lys Lys His Gly Ser
                        135
Lys Cys Leu Val His
145
<210> 1241
<211> 489
<212> DNA
<213> Homo sapiens
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aactaggcag acagaccgac agataggggg aaaccggggat gtttaatgtg tccgaacaag
taggaagatc aatgaggcgc gagtgtgtgt gtgtacgtgt gcgcgtgtgt gtgtgagaga
gagagaaaga aagaagaaag gtcccgattg caacgtgtca gatcttgcaa ccttccccc
acccaacaca acaaccctca gacacaaaaa caccattgct gactgatacc ccaggtcttc
agggttaaag gaaccgtgtg ttggcagcgc aattgtgcag acgctgtaag gccaaaacga
ggatttgtgt tgtgaggtcg gtggtgcgtt cttttctttc tcttctcgcc tgttttcccg
gagtgcctgg gttgcgagaa aggcgcatcg caggctgtgc agccgaatcg cttcgcaatt
480
attcatqct
489
<210> 1242
<211> 127
<212> PRT
<213> Homo sapiens
<400> 1242
Met Asn Asn Cys Glu Ala Ile Arg Leu His Ser Leu Arg Cys Ala Phe
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Leu Ala Thr Gln Ala Leu Arg Glu Asn Arg Arg Glu Glu Lys Glu Lys
                                25
Asn Ala Pro Pro Thr Ser Gln His Lys Ser Ser Phe Trp Pro Tyr Ser
Val Cys Thr Ile Ala Leu Pro Thr His Gly Ser Phe Asn Pro Glu Asp
Leu Gly Tyr Gln Ser Ala Met Val Phe Leu Cys Leu Arg Val Val
                    70
                                        75
Leu Gly Gly Gly Lys Val Ala Arg Ser Asp Thr Leu Gln Ser Gly Pro
                85
                                    90
Phe Phe Phe Leu Ser Leu Ser Leu Thr His Thr Arg Ala His Val His
                                105
Thr His Thr Arg Ala Ser Leu Ile Phe Leu Leu Val Arg Thr His
                            120
<210> 1243
<211> 390
<212> DNA
<213> Homo sapiens
<400> 1243
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gagatgatat acctaccggg aatgttcact gtctacttcg atggccagtt ctgggtcgga
gtectagaga qqeqegacqa gggtttgqtg egtgeegtaa aagteaegtt tggegeegaa
ccgtctgaca cggaattgta cgggtgggtt agccgtcatg gcaacgcact tatagagcga
ttggagtcta ccgctgctgt ccctaccacc cgcagtcccc gagccaagcg actgaacccc
aagagggegt tacgagatgc agcgcgagct gcccaagcac accgtgccag cacgnccgca
caggccgcga ttaaggccga tcaggaagct
390
<210> 1244
<211> 130
<212> PRT
<213> Homo sapiens
<400> 1244
Xaa Asp Ser Val Asp Pro Leu Met Glu Asn Pro Val Cys Gln Val Pro
Ser Ala Tyr Trp Glu Met Ile Tyr Leu Pro Gly Met Phe Thr Val Tyr
                                25
Phe Asp Gly Gln Phe Trp Val Gly Val Leu Glu Arg Arg Asp Glu Gly
Leu Val Arg Ala Val Lys Val Thr Phe Gly Ala Glu Pro Ser Asp Thr
Glu Leu Tyr Gly Trp Val Ser Arg His Gly Asn Ala Leu Ile Glu Arg
                                        75
                    70
Leu Glu Ser Thr Ala Ala Val Pro Thr Thr Arg Ser Pro Arg Ala Lys
```

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85
Arg Leu Asn Pro Lys Arg Ala Leu Arg Asp Ala Ala Arg Ala Ala Gln
            100
                                105
Ala His Arg Ala Ser Thr Xaa Ala Gln Ala Ala Ile Lys Ala Asp Gln
                            120
                                                 125
Glu Ala
    130
<210> 1245
<211> 339
<212> DNA
<213> Homo sapiens
<400> 1245
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ccacaatcta tgcccgtgac ttttctgagc tccaggagtt ttttagcact gccagacttc
tctggagagg aggaggtttc tgccactttt caatttcgaa cttggaataa ggcagggctt
ctgctgttca gtgaacttca gctgatttca gggggtatcc tcctctttct gagtgatgga
aaacttaagt cgaatctcta ccagccaaga aaattaccca gtgacatcac agcaggtgtc
gaattaaatg atgggcagtg gcattctgtc tctttatct
339
<210> 1246
<211> 113
<212> PRT
<213> Homo sapiens
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Ala Lys Gln Gln Lys Pro Gln Ile Ile Ala Met Gly Asn Val Ser Phe
1
                                    10
Ser Cys Ser Gln Pro Gln Ser Met Pro Val Thr Phe Leu Ser Ser Arg
                                25
Ser Phe Leu Ala Leu Pro Asp Phe Ser Gly Glu Glu Glu Val Ser Ala
                          40
Thr Phe Gln Phe Arg Thr Trp Asn Lys Ala Gly Leu Leu Leu Phe Ser
Glu Leu Gln Leu Ile Ser Gly Gly Ile Leu Leu Phe Leu Ser Asp Gly
                    70
                                        75
                                                             80
Lys Leu Lys Ser Asn Leu Tyr Gln Pro Arg Lys Leu Pro Ser Asp Ile
                85
                                    90
Thr Ala Gly Val Glu Leu Asn Asp Gly Gln Trp His Ser Val Ser Leu
            100
                                105
Ser
<210> 1247
<211> 366
<212> DNA
<213> Homo sapiens
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gteggtttet cegtggeett tgegtttgee ategeegeet tgeteggegg gegeetegat
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tgggaccccg gggaaaaccc cttcttcatg ccctggctgg ggggcacccc gctgattcac
360
tegetg
366
<210> 1248
<211> 122
<212> PRT
<213> Homo sapiens
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Leu Thr Ser Asn Pro Gly Thr Arg Ile Leu Pro Gln Ile Pro Met Asp
                                     10
Gly His Asp Leu Asn Pro Val Trp Arg Asp Val Gly Leu Ile Val His
            20
Pro Pro Met Leu Tyr Met Gly Tyr Val Gly Phe Ser Val Ala Phe Ala
Phe Ala Ile Ala Ala Leu Leu Gly Gly Arg Leu Asp Ala Ala Trp Ala
Arg Trp Ser Arg Pro Trp Thr Ile Val Ala Trp Ala Phe Leu Gly Ile
                    70
                                         75
Gly Ile Thr Leu Gly Ser Trp Trp Ala Tyr Tyr Glu Leu Gly Trp Xaa
                85
                                     90
Gly Trp Trp Phe Trp Asp Pro Gly Glu Asn Pro Phe Phe Met Pro Trp
            100
                                105
Leu Gly Gly Thr Pro Leu Ile His Ser Leu
        115
<210> 1249
<211> 374
<212> DNA
<213> Homo sapiens
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ggcgcgcagt tgagcaagct gctgccggat gtgcacctgg tcaatggcac tgccgaggcc
attccactgg aaagcgccgt ggcggatgcg gtggtgtgcg cacaagcctt ccattggttt
tccagcgagg cggccctggc ggaaatccat cgggtactca aaccggatgg gcgcctgggg
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ctggtgtgga atgtgcgcga cgagtcggtg gattgggtcg ccgccattac tcaaatcatc acgccttatg aaggcgacac gccgcgcttt cataccggcc gttggcgcga agccttcact ggcgagtatt tttg 374 <210> 1250 <211> 124 <212> PRT <213> Homo sapiens <400> 1250 Thr Arg Val Leu Asn Thr Leu Ala Pro Thr Leu Ile Ala Val Glu Pro 1 Val Pro Ala Met Gly Ala Gln Leu Ser Lys Leu Leu Pro Asp Val His 25 Leu Val Asn Gly Thr Ala Glu Ala Ile Pro Leu Glu Ser Ala Val Ala 40 Asp Ala Val Val Cys Ala Gln Ala Phe His Trp Phe Ser Ser Glu Ala Ala Leu Ala Glu Ile His Arg Val Leu Lys Pro Asp Gly Arg Leu Gly 75 Leu Val Trp Asn Val Arg Asp Glu Ser Val Asp Trp Val Ala Ala Ile 90 Thr Gln Ile Ile Thr Pro Tyr Glu Gly Asp Thr Pro Arg Phe His Thr 105 Gly Arg Trp Arg Glu Ala Phe Thr Gly Glu Tyr Phe 115 120 <210> 1251 <211> 742 <212> DNA <213> Homo sapiens <400> 1251 accggtctct tcctcggaaa ggcagggccg aggggcttgc ggggcagcca tggaggcgac geggaggegg cageacgtgg gagegaeggg eggeecagge gegeagttgg gegeeteett 120 ccctgcaggc caggcatggc tctgtgagcg ctgatgaggc tgcccgcacg gctcccttcc acctegacet etggttetac tteacactge agaactgggt tetggacttt gggegteeca ttgccatgct ggtattccct ctcgagtggt ttccactcaa caagcccagt gttggggact acttccacat ggcctacaac gtcatcacgc cctttctctt gctcaagctc atcgagcggt coccegeae cetgetaege tecateaegt aegtgageat cateatette atcatgggtg ccagcatcca cctggtgggt gactctgtca accaccgcct gctcttcagt ggctaccagc accacctgtc tgtccgtgag aaccccatca tcaagaatct caagccggag acgctgatcg 540

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actcctttga gctgctctac tattatgatg agtacctggg tcactgcatg tggtacatcc
cettetteet cateetette atgtaettea geggetgetn ttaetgeete taaagetgag
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720
ctggtcaccg agggccagat ct
742
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<211> 80
<212> PRT
<213> Homo sapiens
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Met Arg Leu Pro Ala Arg Leu Pro Ser Thr Ser Thr Ser Gly Ser Thr
                                    10
Ser His Cys Arg Thr Gly Phe Trp Thr Leu Gly Val Pro Leu Pro Cys
            20
                                25
Trp Tyr Ser Leu Ser Ser Gly Phe His Ser Thr Ser Pro Val Leu Gly
                            40
                                                45
Thr Thr Ser Thr Trp Pro Thr Thr Ser Ser Arg Pro Phe Ser Cys Ser
                        55
Ser Ser Ser Gly Pro Pro Ala Pro Cys Tyr Ala Pro Ser Arg Thr
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                                        75
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<211> 675
<212> DNA
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gcgaggagct tttgcggcag gcagagacaa tggaagaaaa tgaaagccag aaatgtgagc
cgtgccttcc ttactcagca gacagaagac agatgcagga acaaggcaaa ggcaatctgc
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360
gaaaaagcgt teetagaaca tetgaagcag aagtaceeec accaegcete tgeaateatg
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ccacccagtg tgggtgaccc ggtcgagcat ttatcagaga cgtccgctga ttctttggaa
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cttcctgtgg tgaggtcaac caaccagacg aaagaaagat ctctgggggt tctctatctc
660
```

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cagtatggag atgaa
 675
 <210> 1254
 <211> 86
 <212> PRT
 <213> Homo sapiens
 <400> 1254
Met Gly His Gln Glu Arg Leu Arg Asp Gln Thr Arg Ile Pro Lys Leu
                  5
                                     10
                                                         15
Ser His Ser Pro Gln Pro Pro Ser Val Gly Asp Pro Val Glu His Leu
            20
Ser Glu Thr Ser Ala Asp Ser Leu Glu Ala Met Ser Glu Gly Asp Ala
Pro Thr Pro Phe Ser Arg Gly Ser Arg Thr Arg Ala Ser Leu Pro Val
                         55
Val Arg Ser Thr Asn Gln Thr Lys Glu Arg Ser Leu Gly Val Leu Tyr
                     70
                                         75
Leu Gln Tyr Gly Asp Glu
                85
<210> 1255
<211> 401
<212> DNA
<213> Homo sapiens
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gacgattatg ccgtcccgac gcacatgggt agcgaccgcg tgttggtagg cccgcgacca
gcacgttggc cctcgtcgca agagacgccc aacgtgccgc tgtccggcga ggcgcatqca
gtacgccatc tgctcgatgc ccttctcgac aaggatccag cgacgcgcct cactctcgat
cgtgttataa cacacccatg gctcgtggca gagtcatggt aatagtagca attgtatata
ccctcatcac caagatggcc aaagcggtac aaggcccgcg g
401
<210> 1256
<211> 113
<212> PRT
<213> Homo sapiens
<400> 1256
Xaa Pro Ile Thr Lys Ala Met Asp Val Trp Ala Leu Gly Val Thr Leu
                                    10
Tyr Cys Leu Leu Phe Gly Arg Val Pro Phe Asp Ala Glu Thr Glu Tyr
                                25
Leu Leu Glu Ser Ile Leu His Asp Asp Tyr Ala Val Pro Thr His
```

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40
Met Gly Ser Asp Arg Val Leu Val Gly Pro Arg Pro Ala Arg Trp Pro
                        55
Ser Ser Gln Glu Thr Pro Asn Val Pro Leu Ser Gly Glu Ala His Ala
                    70
Val Arg His Leu Leu Asp Ala Leu Leu Asp Lys Asp Pro Ala Thr Arg
Leu Thr Leu Asp Arg Val Ile Thr His Pro Trp Leu Val Ala Glu Ser
                                105
Trp
<210> 1257
<211> 294
<212> DNA
<213> Homo sapiens
<400> 1257
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ggcgccacgg cggtggtgca tttggcagcg gtggcttcgg tgcaagcctc ggtggatgac
ccggtcagca cgcgccagag caattttgtc ggcaccttga atgtctgcga agccatgcgc
aaggccggtg tgaagcgtgt ggtatttgct tccagcgttg cggtgtatgg caacaatggc
gagggcgctt cgattgacga agagaccatc aaggccccgc tgacgcctta cgcg
294
<210> 1258
<211> 98
<212> PRT
<213> Homo sapiens
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Arg Val Gln Leu Ile Glu Gly Asp Val Ala Asn Ala Asp Leu Val Ala
                                    10
Gln Ala Ala Ile Gly Ala Thr Ala Val His Leu Ala Ala Val Ala
Ser Val Gln Ala Ser Val Asp Asp Pro Val Ser Thr Arg Gln Ser Asn
Phe Val Gly Thr Leu Asn Val Cys Glu Ala Met Arg Lys Ala Gly Val
                        55
Lys Arg Val Val Phe Ala Ser Ser Val Ala Val Tyr Gly Asn Asn Gly
                                        75
                    70
Glu Gly Ala Ser Ile Asp Glu Glu Thr Ile Lys Ala Pro Leu Thr Pro
Tyr Ala
<210> 1259
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<212> DNA
<213> Homo sapiens
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ctcaccgtgg tgtgttccaa gatgtccagg gccaaggatg ccgtgtcctc cggggtggcc
agegtggtgg aegtggetaa gggagtggte cagggaggee tggacaceae teggtetgea
cttacgggca ccaaggaggc ggtgtccagc ggggtcacag gggccatgga catggctaag
ggggccgtcc aagggggtct ggacacctcg aaggctgtcc tcaccggcac caaggacacg
360
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417
<210> 1260
<211> 133
<212> PRT
<213> Homo sapiens
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Leu Lys Glu Ala Ala Gln Gly Leu Ala Leu Arg Phe Gly Gly Ile Pro
                                    10
Ser Pro Phe Val Trp Ser Arg His Ser Glu Asn Val Arg Ser Cys Arg
                                25
Arg Gly Leu Thr Val Val Cys Ser Lys Met Ser Arg Ala Lys Asp Ala
                            40
Val Ser Ser Gly Val Ala Ser Val Val Asp Val Ala Lys Gly Val Val
Gln Gly Gly Leu Asp Thr Thr Arg Ser Ala Leu Thr Gly Thr Lys Glu
Ala Val Ser Ser Gly Val Thr Gly Ala Met Asp Met Ala Lys Gly Ala
                85
                                    90
Val Gln Gly Gly Leu Asp Thr Ser Lys Ala Val Leu Thr Gly Thr Lys
                                105
Asp Thr Val Ser Thr Gly Leu Thr Gly Ala Val Asn Val Ala Lys Gly
Pro Val Gln Ala Gly
    130
<210> 1261
<211> 330
<212> DNA
<213> Homo sapiens
<400> 1261
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60
ctggtccgcc aatcccagac ctggatcccc ttgatcatgg agtacggcag ccgcctgctg
120tgaccctggc ggtcggctgg tggatcgaca acaaggtcag cgcccgcctg
ggcaaactgg taggcctgcg caacgccgac ctggcactgc aaggctttat cagcaccttg
240
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tegaacateg ggetgaaagt getgetgtte gteagtgtgg egtegatgat eggeattgag
accacctcgt tcgtcgcgga catcggtgct
330
<210> 1262
<211> 110
<212> PRT
<213> Homo sapiens
<400> 1262
Xaa Ala Arg Ala Val Arg His Gln Glu Met Asn Met Asp Leu Asn Ala
Glu Val Asp Gln Leu Val Arg Gln Ser Gln Thr Trp Ile Pro Leu Ile
                                25
Met Glu Tyr Gly Ser Arg Leu Leu Leu Ala Leu Leu Thr Leu Ala Val
                            40
Gly Trp Trp Ile Asp Asn Lys Val Ser Ala Arg Leu Gly Lys Leu Val
Gly Leu Arg Asn Ala Asp Leu Ala Leu Gln Gly Phe Ile Ser Thr Leu
Ser Asn Ile Gly Leu Lys Val Leu Leu Phe Val Ser Val Ala Ser Met
                85
                                    90
Ile Gly Ile Glu Thr Thr Ser Phe Val Ala Asp Ile Gly Ala
            100
                                105
<210> 1263
<211> 351
<212> DNA
<213> Homo sapiens
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gtcaacagac cgtcaccgtg gttgacgatc tcgccggtgg aggcgtcctt gacgacgatc
tggccacgcg ccagggaata catctccca tccacccaaa agaacgcccc caagctgggc
atcttggcca gcccgatgat cgagagggtt tcaacaagcg actcgggatc c
351
<210> 1264
<211>, 100
<212> PRT
<213> Homo sapiens
<400> 1264
Met Pro Ser Leu Gly Ala Phe Phe Trp Val Asp Gly Glu Met Tyr Ser
                                    10
Leu Ala Arg Gly Gln Ile Val Val Lys Asp Ala Ser Thr Gly Glu Ile
```

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30
                                25
Val Asn His Gly Asp Gly Leu Leu Thr Trp Ser Glu Lys Lys Leu Asn
                            40
Pro Ala Thr Ile Val Val Glu Met Glu Gln Ala Gly Gln Gly Leu Ser
Met Pro Leu Leu Gly Val Ala Gln Ala Ser Lys Leu Ile Ile Asp
Ala Thr Gly Asn Val Glu Pro Phe Val Val Pro Gln Thr Asp Glu Val
                85
His Arg Pro Arg
            100
<210> 1265
<211> 318
<212> DNA
<213> Homo sapiens
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tgctgcaccg ccaaaattat ggacgccccc cgaccccact cgctctgacg ataccattgc
180
acageegaaa gtgcaaceag eecaageagt gggagatgae tegateatgt eggtegatga
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agatccatcg cgacgcgt
318
<210> 1266
<211> 99
<212> PRT
<213> Homo sapiens
<400> 1266
Met Leu Ser Asp Met Pro Ala Leu Gln Leu Val Asn Arg Lys Leu Asp
Asn Ala Arg Leu Val Glu Ser Ser Leu Arg Lys Leu Ile Lys Asp Thr
                                25
Asp Ala Ala Pro Pro Lys Leu Trp Thr Pro Pro Asp Pro Thr Arg
                            40
Ser Asp Asp Thr Ile Ala Gln Pro Lys Val Gln Pro Ala Gln Ala Val
                        55
Gly Asp Asp Ser Ile Met Ser Val Asp Glu Pro Asp Ala Thr Val His
                    70
Asp Met Pro Leu Thr Thr Leu Asp Asn Val Gly Arg Ser Asp Pro
                                    90
Ser Arg Arg
<210> 1267
<211> 343
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<212> DNA
<213> Homo sapiens
<400> 1267
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tattecectt gtgaacacte gtgggaaatg teecatggee egtgttteeg tgeacetgeg
240
gatactcatc aaacaccagg ctgtcattgg ggacagggtg agctctggct gttggtgcag
300
catggtagga agagcaccaa gtcctggact ctgttgattt ata
343
<210> 1268
<211> 106
<212> PRT
<213> Homo sapiens
<400> 1268
Met Pro His Ser Leu Cys Phe Tyr Ser Pro Cys Glu His Leu Trp Glu
                                    10
Leu Ser His Gly Pro Cys Phe Cys Ala Pro Ala Asp Thr Arg Gly Lys
            20
                                25
Cys Pro Thr Thr Cys Val Phe Val Pro Leu Val Asn Thr Arg Gly Lys
                            40
Cys Pro Thr Thr Cys Val Phe Ile Pro Leu Val Asn Thr Arg Gly Lys
                        55
Cys Pro Met Ala Arg Val Ser Val His Leu Arg Ile Leu Ile Lys His
                    70
                                        75
Gln Ala Val Ile Gly Asp Arg Val Ser Ser Gly Cys Trp Cys Ser Met
                                    90
                85
Val Gly Arg Ala Pro Ser Pro Gly Leu Cys
            100
                                105
<210> 1269
<211> 391
<212> DNA
<213> Homo sapiens
<400> 1269
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cggcgcggac tacgacaccg tgtccgaaac ctttggtctt tcgccacaat tctgcagcca
gacctggggc gcacggccgg ttcaccgcaa cggtgatcct ggcagcggcc atggcggtgt
ccagcggcct cgcgcggcgg gtggcttgcc tcatgggcat gaagaattcg gacctcgggc
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acggggaaga gggttggatc ggcatggcct c
391
<210> 1270
<211> 110
<212> PRT
<213> Homo sapiens
<400> 1270
Met Met Lys Gly Ile Val Arg Leu Thr Gln Pro Pro Glu Val Arg Ile
                                    10
Leu His Ala His Glu Ala Ser His Pro Pro Arg Glu Ala Ala Gly His
            20
Arg His Gly Arg Cys Gln Asp His Arg Cys Gly Glu Pro Ala Val Arg
        35
Pro Arg Ser Gly Cys Arg Ile Val Ala Lys Asp Gln Arg Phe Arg Thr
                        55
                                            60
Arg Cys Arg Ser Pro Arg Arg Gly Gly Thr Pro Pro Gly Arg Ser Ala
                                        75
Arg Leu Gly Arg Pro Ala Pro Gly Arg Arg Pro Ala Met Arg Pro Ala
Gly Arg Arg Gln Pro Ser Ala Ala Pro Ile Ala Pro Asp Arg
                                105
                                                     110
<210> 1271
<211> 661
<212> DNA
<213> Homo sapiens
<400> 1271
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cccccggttg cgtcaccata tggcccacta aagagttcac cagggttgat ttaccagccc
cggtcgaccc tcctaccacc gccagaagcg gcgcatcaat agtctctaag cgcggcaaaa
tatagtcgtt aagctggtta gcgatgcgtc gtgccagccc ggcctgagta atagcctccg
gcaaatccaa ggggaactgg gcctgacgca ggttgtgccg cagatcggtc aacgacagca
gtatetgete agtgtteatg gtgateette etggteacte gteaggeetg tggeggegee
420
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cggttgatga gctcgatctg aagcggacca ggatcatcgt ccaacccacg cacaatggcg
600
tcacgaagat aagcaagatc tgtcccaacg cgcaggaact ctaacgtgtg ccaccaccgg
660
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661
<210> 1272
<211> 126
<212> PRT
<213> Homo sapiens
<400> 1272
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                                25
Ala Gly Leu Ala Arg Arg Ile Ala Asn Gln Leu Asn Asp Tyr Ile Leu
                            40
Pro Arg Leu Glu Thr Ile Asp Ala Pro Leu Leu Ala Val Val Gly Gly
Ser Thr Gly Ala Gly Lys Ser Thr Leu Val Asn Ser Leu Val Gly His
                    70
                                        75
Met Val Thr Gln Pro Gly Val Ile Arg Pro Thr Thr Thr Ser Pro Val
                                    90
Leu Val His His Pro Asp Asp Ala Phe Trp Phe Asp Gly Asp Arg Val
            100
                                105
Leu Pro Thr Leu Val Arg Ser Gln Val Ala Ser Asn Asp Ala
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<212> DNA
<213> Homo sapiens
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ctegacaege etgatgeegg tegegteage gagettggeg gaacagtega ggatggtgag
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240
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gatgagctgg caggctacct aagtcgacat gcacagctgt ggtcggagtt tcgtgctgca
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489
<210> 1274
<211> 163
<212> PRT
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Xaa Leu Ala Ser Ala Ser Thr Ser Lys Ser Tyr Gln Gln Gln Arg Glu

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10
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            20
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Asp Pro Thr Pro Ser Pro Gln Pro Pro Glu Asp Ala Gly Leu Ile Asp
                            40
                                                 45
Val Ala Leu Lys Glu Ala Lys Lys Ala Phe Asp Glu Gly Lys Val Asp
                        55
                                            60
Leu Met Asp Lys Leu Asn Glu Glu Ile Leu Arg Leu Ala Asn Glu Phe
                                        75
Gly Ala Leu Gly Leu Glu Ser Ile Glu Leu Gly Ser Asp Ala Lys Met
Ala Val Arg Lys Gly Asn Gln Lys Ser Ala Phe Ser Arg Leu Thr Pro
                                105
                                                    110
Gly Glu Arg Leu Arg Leu Arg Ile Ala Thr Ala Ile Ala Leu Leu Arg
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<212> DNA
<213> Homo sapiens
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aagteteete aaccagtgaa tgatgataac attegtgaaa etaagaacge agtgattega
gacttgggga aaaaaataac tttcagtgat gtcagaccaa accagcagga gtacaaaatt
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gatgaatcac atgatgaaat tcaacatgat qq
392
<210> 1278
<211> 130
<212> PRT
<213> Homo sapiens
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Gln Phe Gln Pro Arg Cys Val Ser Pro Ile Pro Val Ser Pro Thr Ser
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Arg Ile Gln Asn Pro Val Ala Phe Leu Ser Ser Val Leu Pro Ser Leu
            20
                                25
Pro Ala Ile Pro Pro Thr Asn Ala Met Gly Leu Pro Arg Ser Ala Pro
                            40
Ser Met Pro Ser Gln Gly Leu Ala Lys Lys Asn Thr Lys Ser Pro Gln
                        55
Pro Val Asn Asp Asp Asn Ile Arg Glu Thr Lys Asn Ala Val Ile Arg
                    70
Asp Leu Gly Lys Lys Ile Thr Phe Ser Asp Val Arg Pro Asn Gln Gln
```

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90
                85
                                                         95
Glu Tyr Lys Ile Ser Ser Phe Glu Gln Arg Leu Met Asn Glu Ile Glu
                               105
Phe Arg Leu Glu Arg Thr Pro Val Asp Glu Ser His Asp Glu Ile Gln
                            120
        115
His Asp
    130
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<212> DNA
<213> Homo sapiens
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cacgccgccg ccaaacccgc tgactccgct gcctccgagg gcggcgagga cctcaagagc
tgggacgcga agttcgtcaa ggtggaccag gctacgctct tcgacctcat cctggctgcc
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<210> 1280
<211> 99
<212> PRT
<213> Homo sapiens
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Met Glu Ser Gln Thr Leu Arg His Met Ile Glu Asp Asp Cys Ala Asp
Asn Gly Ile Pro Leu Pro Asn Val Asn Ser Arg Ile Leu Ser Lys Val
                                25
Ile Glu Tyr Cys Asn Ser His Val His Ala Ala Ala Lys Pro Ala Asp
                            40
Ser Ala Ala Ser Glu Gly Gly Glu Asp Leu Lys Ser Trp Asp Ala Lys
                        55
Phe Val Lys Val Asp Gln Ala Thr Leu Phe Asp Leu Ile Leu Ala Ala
                    70
                                        75
Asn Tyr Leu Asn Ile Lys Gly Leu Leu Asp Leu Thr Cys Gln Thr Gly
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                                    90
Ala Asp Met
<210> 1281
<211> 515
<212> DNA
<213> Homo sapiens
<400> 1281
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ttttaaactc ttttccacat ctgtataggt ttgaaaatta tcaacaactc atggggaggg

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tggcgtgcca ggtcatggct gcctggagcc cttctgagga gggccggctc aaccgaggac
180
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ttcagaacag gcaacaggag gagcctgact ccaacagagt tggtgtcatc cggcgcatcg
300
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360
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ttgcttctaa tttttaaaaa cattcaatgt gtaca
515
<210> 1282
<211> 135
<212> PRT
<213> Homo sapiens
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Glu Asn Tyr Gln Gln Leu Met Gly Arq Val Ala Cys Gln Val Met Ala
            20
                                25
Ala Trp Ser Pro Ser Glu Glu Gly Arg Leu Asn Arg Gly Arg Pro Pro
His Tyr Gln Val Gly Thr Ala Gly Arg Ser Arg His Pro His Pro Lys
Glu Val Gln Asn Arg Gln Gln Glu Glu Pro Asp Ser Asn Arg Val Gly
                    70
Val Ile Arg Arg Ile Ala Lys Asp Val Thr Thr His Gln Leu Trp Glu
Pro Lys Gly Val Cys Gly Pro Leu Lys Gly Lys Met Ile Gln Lys Leu
            100
                                105
Cys Ser Leu Pro Leu Leu Lys Asn Thr Gly Val Thr Arg Gly Glu
                            120
Ser Thr Gly Leu Ile Ser Ser
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                        135
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<211> 296
<212> DNA
<213> Homo sapiens
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gaatcccggc tggggctctt aggagggagg aaagttccca caggtaactc actggttaat
180
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tttaaagagc tcaggaaagg aaggaaggat ggctttttct cttgtgagtc aagacaaggt
cctgatgata accctcccag atcagaacgt aactttcaac ccacgagtgc tgctcn
296
<210> 1284
<211> 94
<212> PRT
<213> Homo sapiens
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Ser Thr Ala Glu Leu Ile His Ile Cys Phe Val His Thr Lys Lys Asn
            20
                                 25
Ser Ser Pro Lys Glu Ser Arg Leu Gly Leu Leu Gly Gly Arg Lys Val
                            40
                                                 45
Pro Thr Gly Asn Ser Leu Val Asn Phe Lys Glu Leu Arg Lys Gly Arg
Lys Asp Gly Phe Phe Ser Cys Glu Ser Arg Gln Gly Pro Asp Asp Asn
Pro Pro Arg Ser Glu Arg Asn Phe Gln Pro Thr Ser Ala Ala
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<211> 526
<212> DNA
<213> Homo sapiens
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gctgcccaaa gctcctacgg ggctggggga tccgagagag gacttcccac tagtccaaga
tgtggtgact agtttcaagc cagagattga ggagcagacc tgatgccctt tcgggcccct
gctaagaacc tgattcgagg aaaaggaagt gaagacagta acgcgt
526
<210> 1286
<211> 102
<212> PRT
<213> Homo sapiens
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Met Ala Asp Val Leu Cys Gln Gly Arg Gln Pro His Arg Lys Gly Ser

<400> 1286

Ala Trp Pro Arg Ser Asn Lys Arg Asp Ser Thr Pro Gln Thr Arg Glu 25 20 Gly Glu Cys Val Gln Arg Leu Asp Leu Leu Asn Ser Glu Pro Gln Thr Phe Arg Tyr Phe Gly Glu Asp Gln Cys Ser Phe Lys Pro Thr Leu Gln Arg Gln Ala Leu Lys Arg Leu Thr Ser Val Arg Ala Thr Gly Trp Ala 75 70 Ala Gln Ser Ser Tyr Gly Ala Gly Gly Ser Glu Arg Gly Leu Pro Thr 85 Ser Pro Arg Cys Gly Asp 100 <210> 1287 <211> 333 <212> DNA <213> Homo sapiens acgcgtgaag gggagaggca gctccaggtg gagggaagtg catgaggaag cagagaggca ggcgacaggc agcgtggctg gggctgggca ggccttccag tttgattgca gcccagaggt caggtgagaa gaaggtacaa caagcaagga aggccccagg aagccactgg gggtgtttga gccattgaat attctggatt ttaggacatt tctgtggctg actccactgc catcagagtt catccaccc aactccagcc tgagagtgct ggggcactgg gcactccgga attcttcaaa getetgatge aacatgteee cagggtgtet gae 333 <210> 1288 <211> 105 <212> PRT <213> Homo sapiens <400> 1288 Met Leu His Gln Ser Phe Glu Glu Phe Arg Ser Ala Gln Cys Pro Ser 10 Thr Leu Arg Leu Glu Leu Gly Trp Met Asn Ser Asp Gly Ser Gly Val 25 Ser His Arg Asn Val Leu Lys Ser Arg Ile Phe Asn Gly Ser Asn Thr 40 Pro Ser Gly Phe Leu Gly Pro Ser Leu Leu Val Val Pro Ser Ser His 55 60 Leu Thr Ser Gly Leu Gln Ser Asn Trp Lys Ala Cys Pro Ala Pro Ala 75 Thr Leu Pro Val Ala Cys Leu Ser Ala Ser Ser Cys Thr Ser Leu His Leu Glu Leu Pro Leu Pro Phe Thr Arg

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240

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agcoggottt cagogtoata ogcaaacogo tgoacgocao gottggcact gogottotog
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379
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<211> 121
<212> PRT
<213> Homo sapiens
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Asp Ala Glu Ser Arg Leu Val Glu Val Arg Asn Asp Asp Gly Ser Val
Val Arg Met Val Tyr Asp Pro Leu Gly Arg Arg Ile Glu Lys Thr Glu
His Gly Ser Asp Gly Tyr Pro Leu Gly Glu Thr Arg Phe Thr Trp Asp
                        55
Gly Leu Arg Leu Leu Gln Glu His Lys His Ser Gln Thr Ser Leu Tyr
                    70
                                        75
Val Tyr Glu Asp Glu Gly Tyr Gln Pro Leu Ala Arg Val Asp Gly Ala
                85
                                    90
Gly Pro Leu Gln Lys Ile Arg Tyr Tyr His Asn Asp Leu Asn Gly Leu
                                105
Pro Glu Gln Leu Thr Glu Val Asp Gly
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<212> DNA
<213> Homo sapiens
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120
ctgcacttcg ccgcaggttt tgggcggaaa gacgtagttg aatatttgct tcagaatggt
gcaaatgtcc aagcacgtga tgatgggggc cttattcctc ttcataatgc atgctctttt
ggtcatgctg aagtagtcaa tctccttttg cgacatggtg cagaccccaa tgcttgagat
aattggaatt atactcctag agggtggagt gtgctcgcga
340
<210> 1294
<211> 98
<212> PRT
<213> Homo sapiens
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Thr Ala Gly Arg Lys Ser Thr Pro Leu His Phe Ala Ala Gly Phe Gly
                            40
Arg Lys Asp Val Val Glu Tyr Leu Leu Gln Asn Gly Ala Asn Val Gln
                        55
Ala Arg Asp Asp Gly Gly Leu Ile Pro Leu His Asn Ala Cys Ser Phe
                    70
                                        75
Gly His Ala Glu Val Val Asn Leu Leu Arg His Gly Ala Asp Pro
                85
Asn Ala
<210> 1295
<211> 351
<212> DNA
<213> Homo sapiens
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cggaggagag gaactgctgg atgtcgaggt caccetcgat cagettgace ttggegtege
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351
<210> 1296
<211> 75
<212> PRT
<213> Homo sapiens
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Gly Ser Arg Arg Pro Arg Arg Thr Ser Pro Arg Pro Gly Pro Arg
Arg Gly Thr Pro Thr Cys Arg Cys Pro Arg Pro Arg Cys Ser Arg Ser
                                25
Ala Val Arg Arg Arg Gly Arg Arg Cys Arg Ser Gly Cys Ala
Arg Arg Arg Pro Ala Thr Ala Val Arg Pro Thr Pro Arg Arg Arg Gly
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Thr Ala Gly Cys Arg Gly His Pro Arg Ser Ala
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<210> 1297
<211> 356
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<212> DNA
<213> Homo sapiens
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gatacactct acaaatctcg gggcccacca caccaagaag acacggagga gccaacaaaa
gaaggaccat acgaaatgca cccccaaagc aaccaaccaa tccaagaaaa aatacgtctc
agggttetgt gggeeetett geatgggetg eeetgeeeee etgttetgge etggeteaag
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356
<210> 1298
<211> 91
<212> PRT
<213> Homo sapiens
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Met Gly Thr Leu His Ala Thr Ala Pro Thr Arg Gly Thr Asp Thr Leu
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Tyr Lys Ser Arg Gly Pro Pro His Gln Glu Asp Thr Glu Glu Pro Thr
Lys Glu Gly Pro Tyr Glu Met His Pro Gln Ser Asn Gln Pro Ile Gln
                            40
Glu Lys Ile Arg Leu Arg Val Leu Trp Ala Leu Leu His Gly Leu Pro
                                            60
    50
Cys Pro Pro Val Leu Ala Trp Leu Lys His Leu Thr Pro Ala Cys Ser
                    70
Lys Glu Pro Trp Leu Pro Glu Gln Ser Thr Gly
                85
<210> 1299
<211> 307
<212> DNA
<213> Homo sapiens
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300
tccttag
307
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<210> 1300
<211> 90
<212> PRT
<213> Homo sapiens
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Ser Leu Pro Cys Gly Ser Leu His Arg Ala Ala Ser Cys Val Phe Ala
            20
                                 25
Ile Trp Gln Leu Arg Met Ile Leu Ala Thr Phe Ser Ser Pro Gly Val
                            40
Gly Ser Phe Leu Gly Trp Gly His Gly Ser Cys Pro Glu Phe Ala Leu
Ala Lys Ala Cys Ala Ser Asp Pro Gly Ala Glu Arg Ser Val Ser Val
Thr Leu Gln Pro Gln Phe Leu Gly Leu Pro
<210> 1301
<211> 408
<212> DNA
<213> Homo sapiens
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408
<210> 1302
<211> 136
<212> PRT
<213> Homo sapiens
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Leu Ser Lys Leu Lys Glu Val Leu Glu Phe Tyr Asn Phe Ile Leu Thr
                                    10
Asn Tyr Tyr Lys Val Glu Pro Ile Ser Phe Asp Ala Val Tyr Ala Glu
                                25
Gly Leu Glu Met Ala Glu Phe Leu Arg Pro Met Val Ser Asp Thr Ile
Thr Leu Leu His Asp Leu Arg Arg Ser Gly Ala Asn Ile Met Phe Glu
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55
Gly Ala Gln Gly Ser Leu Leu Asp Val Asp His Gly Thr Tyr Pro Tyr
65
                    70
                                                             80
Val Thr Ser Ser Asn Thr Thr Ala Gly Gly Ala Pro Ala Gly Thr Gly
                                     90
Phe Gly Pro Leu Tyr Leu Asp Tyr Val Leu Gly Ile Thr Lys Ala Tyr
            100
                                105
Thr Thr Arg Val Gly Ser Gly Pro Phe Pro Thr Glu Leu Phe Asp Glu
                            120
Asp Gly Glu Arg Leu Gly Thr Arg
    130
<210> 1303
<211> 1037
<212> DNA
<213> Homo sapiens
<400> 1303
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gtttgccctg gggccctctc atcccacatc attttttcaa cccttcccca ncctttcnga
aatagggcca accccttaaa aancaaatnt tcanataaac ccttttccct ccaccctttt
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tttatctgaa actcaaattt gcctgggcgt cctgtacttt tcttaactaa atttggtgcc
540
tetacacaca aggreectgg ggrgggggg cacaggagca agcceettee caggergggt
600
ecetgeegge ateteceaca ggeeaggaet ggeeaceeag atggageeeg tgeeaggeag
eeggegacag aeggacaaag getgeteagg agacaetgea cacetteete tttettgtet
720
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cctgacaget cegageacae ceggeeacag tgaceaegga etgeacaege agaageagte
1020
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1037
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<210> 1304 <211> 132

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<212> PRT
<213> Homo sapiens
<400> 1304
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Gly Asp Thr Ala His Leu Pro Leu Ser Cys Leu Gly Ala Gln Glu Ser
            20
                                25
                                                     30
Arg Arg Pro Pro Pro Arg Ala Ser Thr Lys Thr Gly Ser Gln Pro Ala
        35
                            40
                                                 45
Met Pro Ser Pro Leu Arg Pro Gln Gly Ser Ala Gly Val Leu Pro Glu
                                             60
Pro Arg Val Pro Val Gln Lys Pro Gly Ile Asn Ala Ala Ser Pro Ile
Gly Thr Val Arg Val Glu Arg Gly Arg Pro Thr Val Ser Pro Ala Gly
                                    90
                85
Arg Gly Ser Pro Arg Gly Gly His Val Gly Gly Leu Thr Ala Pro Ser
                                105
Thr Pro Gly His Ser Asp His Gly Leu His Thr Gln Lys Gln Ser Gly
        115
                            120
Ser His Ala Trp
    130
<210> 1305
<211> 775
<212> DNA
<213> Homo sapiens
<400> 1305
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Asp Ala Asp Gly His Trp Val Ser Gly Thr Phe Asp Thr Ser Trp Glu
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Arg Leu Asp Ala Ala Ala Met Gly Phe Asp Val Val Tyr Leu Pro
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Ala Ile His Pro Met Gly Gln Ala Phe Arg Lys Gly Lys Asp Asn Thr
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Leu Thr Pro Gly Pro Asp Asp Pro Gly Ser Pro Trp Ala Ile Gly Ser
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Ser Asp Gly Gly His Asp Thr Ile His Pro Asp Leu Gly Thr Phe Asp
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Asp Leu Asp Arg Phe Val Ala His Ala His Asp Leu Gly Met Glu Val
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Ala Leu Asp Phe Ala Leu Gln Ala Ser Pro Asp His Pro Trp Val His
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Gln His Pro Glu Trp Phe Thr Thr Arg Val Asp Gly Thr Ile Ala Tyr
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Ala Glu Asn Ser Pro Lys Lys Tyr Gln Asp Ile Tyr Pro Ile Asn Phe
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Asp Asn Asp Pro Asp Gly Ile Tyr Gln Glu Cys Leu Arg Leu Leu Glu
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Leu Trp Ile Ser His Gly Val Thr Ile Phe Arg Val Asp Asn Pro His
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                                            220
Thr Lys Pro Leu Asn Phe Trp Ala Trp Leu Met Glu Gln Val His Arg
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Ile Asp Arg Gly Asn Ala His Lys Ala Arg Arg Ser Met Leu Thr Thr
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Phe Gln Met Ala Ile Ala Ala Gly Val Pro Ile Val Gln Val Cys Val
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Gly Leu Pro Gln Gly Arg Asp Thr Thr Gln Leu Leu Ala Ser Glu Met
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Ser Pro Leu Arg Glu Glu Ala Ala Gly Ala Glu Asp Glu Lys Val Tyr
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Asn Leu Ala Ser Pro Ser Glu Glu Thr Leu Asn Glu Gly Glu Ile Leu
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				Lys 645					650					655	
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715

710

705

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660
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tgcgggaagc gcttcgagaa gctggacagc gtcaagttcc acacgctcaa aagccacccg
840
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gateacaage ceacetgace cacetgacea etgacegece etatttatte gteegetegg acaccacage eegggettge eggggeetgg acagetgega gggeeggeeg gaeegeggge cggaaggagc gcccccgccc cgccccagag ctggcgcccc tgggcaggtt ccccaccccg ccccaccgca tccttctcgg agctggtgcc tggggctgca ttgctggaac tgtgtcaaga 1123 <210> 1318 <211> 285 <212> PRT <213> Homo sapiens <400> 1318 Xaa Ala Glu Gly Ile His Leu Asn Met Ala Ala Gly Ser Gly Val Pro 10 Gly Ser Gly Leu Gly Glu Glu Val Pro Cys Ala Met Met Glu Gly Val 25 Ala Ala Tyr Thr Gln Thr Glu Pro Glu Gly Ser Gln Pro Ser Thr Met Asp Ala Thr Ala Val Ala Gly Ile Glu Thr Lys Lys Glu Lys Glu Asp Leu Cys Leu Leu Lys Lys Glu Glu Lys Glu Glu Pro Val Ala Pro Glu 70 Leu Ala Thr Thr Val Pro Glu Ser Ala Glu Pro Glu Ala Glu Ala Asp 85 90 Gly Glu Glu Leu Asp Gly Ser Asp Met Ser Ala Ile Ile Tyr Glu Ile 105 110 Pro Lys Glu Pro Glu Lys Arg Arg Arg Ser Lys Arg Ser Arg Val Met 120 Asp Ala Asp Gly Leu Leu Glu Met Phe His Cys Pro Tyr Glu Gly Cys 135 140 Ser Gln Val Tyr Val Ala Leu Ser Ser Phe Gln Asn His Val Asn Leu 155 150 Val His Arg Lys Gly Lys Thr Lys Val Cys Pro His Pro Gly Cys Gly 170 Lys Lys Phe Tyr Leu Ser Asn His Leu Arg Arg His Met Ile Ile His 185 180 Ser Gly Val Arg Glu Phe Thr Cys Glu Thr Cys Gly Lys Ser Phe Lys 200 Arg Lys Asn His Leu Glu Val His Arg Arg Thr His Thr Gly Glu Thr Pro Leu Gln Cys Val Ile Cys Gly Tyr Gln Cys Arg Gln Arg Ala Ser 230 235 Leu Asn Trp His Met Lys Lys His Thr Ala Glu Val Gln Tyr Asn Phe 245 250 Thr Cys Asp Ala Cys Gly Lys Arg Phe Glu Lys Leu Asp Ser Val Lys 265 Phe His Thr Leu Lys Ser His Pro Asp His Lys Pro Thr 280 275

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<213> Homo sapiens
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ctgaatgtgt gaatgggtcc ctgggtgctt tecttectet gggageteeg tgggagagtg
gagtcgatgc caagtcagag agcagttggg gaggaaccca gaagccctgg gatggtgtct
240
gcatgggaat gtgtagggag gcagccacaa tgggcctggg ccttcctttc tctccttcct
qtcccctcc cccatccccc tctctcctcc cttccttctg gaaacccagt actgggggaa
acacacag gtgggatgca ggtatccggg aagctcatag aagctgccac gctgctggag
tttgcctcat acaggagcgt gggcatgccc cgcgtggagt tgtgctgtgt gtgtgcatat
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<211> 169
<212> PRT
<213> Homo sapiens
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Ser Gln Asn Ser Ala Gly Ser Arg Gly Trp Gly Met Ala Pro Ala Glu
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Cys Val Asn Gly Ser Leu Gly Ala Phe Leu Pro Leu Gly Ala Pro Trp
                                                45
                            40
Glu Ser Gly Val Asp Ala Lys Ser Glu Ser Ser Trp Gly Gly Thr Gln
                                            60.
Lys Pro Trp Asp Gly Val Cys Met Gly Met Cys Arg Glu Ala Ala Thr
                    70
                                        75
Met Gly Leu Gly Leu Pro Phe Ser Pro Ser Cys Pro Pro Pro Pro Ser
                                    90
                85
Pro Ser Leu Leu Pro Ser Phe Trp Lys Pro Ser Thr Gly Gly Asn Thr
                                105
                                                    110
            100
His Arg Trp Asp Ala Gly Ile Arg Glu Ala His Arg Ser Cys His Ala
                            120
Ala Gly Val Cys Leu Ile Gln Glu Arg Gly His Ala Pro Arg Gly Val
                        135
Val Leu Cys Val Cys Ile Cys Met Val Val Cys Ala Trp Gly Trp Gly
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                                                             160
                    150
Ile Leu Thr Trp Gly His Ser Gln Ser
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<212> DNA
<213> Homo sapiens
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cgcccggatc gctcacggta cgcaacgacg aagcagggat cgctcagacc cgggcacgtc
atcqtcaaga agatttacaa caacaatgtc cttctcggcg tcaacggttc ggggaccgaa
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gaagagetgg geactececa tgecegaegg atgatgetge ceatectega teacetegte
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geagetgtge acegagetaa geagggggee gteategatt tteecetgga atgggaagte
540
cgtcagctct atcccgatga ggcggaactg ggccgacgcg ctgtcgaaat cgtcgacggt
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getetegaaa teeatttgea accegaggaa tgggtggeat teteeetgea etteateaat
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gttttcaccg agctggagga cctgtggcac gttgagatcg accgttcgtc catgagegca
780
tecegetteg teacceaect tegetatetg ttegeteggg ceteggacaa caageagete
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gcagctagcc aagtggccga gcacatatcg aaagcaatcg gcaacgacct gacggaagcc
gaaatcaact acatcgcctt acacaccacc cggctctaca acgaggtgat ggggatggat
1020
gactgacgat cgcgcacctg ttaaggctca tcggtagtgg gcaatacaca aaatggcgat
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1292
<210> 1322
<211> 317
<212> PRT
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<213> Homo sapiens

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<213> Homo sapiens

<400> 1323

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ggcaaaattg ctgagatgcg tacaggtgaa ggtaaaaccc tgatgggtac tttagcgtgt 120 .

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tacctcaatg cattgagtgg tcagggtgtg catgtcatca ccgtcaatga ctatcttgca
caacgtgatg ctgaactcaa ccgcccatta tttgagtttt tgggtttaag catcggtgtg
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ggtacc
306
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<211> 102
<212> PRT
<213> Homo sapiens
<400> 1324
Arg Val Met Gly Met Arg His Tyr Asp Val Gln Leu Ile Gly Gly Ile
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                                     10
                                                         15
Thr Leu His Glu Gly Lys Ile Ala Glu Met Arg Thr Gly Glu Gly Lys
                                 25
Thr Leu Met Gly Thr Leu Ala Cys Tyr Leu Asn Ala Leu Ser Gly Gln
                             40
Gly Val His Val Ile Thr Val Asn Asp Tyr Leu Ala Gln Arg Asp Ala
Glu Leu Asn Arg Pro Leu Phe Glu Phe Leu Gly Leu Ser Ile Gly Val
Ile Tyr Ser Met Gln Met Pro Ala Glu Lys Ala Gln Ala Tyr Leu Ala
                                     90
Asp Ile Thr Tyr Gly Thr
            100
<210> 1325
<211> 391
<212> DNA
<213> Homo sapiens
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attgtcgccg catqttccqt ctccqctcat qccqqaaqct qqccaqaqaa accqatcacg
atggtcgtgc cgtttcccgc cggaggcggc accgatctcg tggcgcgctc gatccagccg
cttttgcage gegaactegg acaaceggtg gtgategaca acegeagegg cgeaggegge
aegetegget ceagettegt ggegegggee gttgeegaeg getaeaegge tggegtggte
300
accacgagca cccacgcggt aagcgtcgcg ctctatcccc ggctggccta caacccgaca
gcggactttg catacgccgg cttcatcggc n
391
<210> 1326
<211> 130
<212> PRT
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<213> Homo sapiens <400> 1326 Val His Met Gly Pro Leu Ala Asn Pro Thr Arg Gly Leu Arg Arg Ala 5 10 Ile Leu Ala Ala Ile Val Ala Ala Cys Ser Val Ser Ala His Ala Gly Ser Trp Pro Glu Lys Pro Ile Thr Met Val Val Pro Phe Pro Ala Gly 40 Gly Gly Thr Asp Leu Val Ala Arg Ser Ile Gln Pro Leu Leu Gln Arg 55 Glu Leu Gly Gln Pro Val Val Ile Asp Asn Arg Ser Gly Ala Gly Gly Thr Leu Gly Ser Ser Phe Val Ala Arg Ala Val Ala Asp Gly Tyr Thr 90 Ala Gly Val Val Thr Thr Ser Thr His Ala Val Ser Val Ala Leu Tyr 100 105 Pro Arg Leu Ala Tyr Asn Pro Thr Ala Asp Phe Ala Tyr Ala Gly Phe 120 125 Ile Gly 130 <210> 1327 <211> 324 <212> DNA <213> Homo sapiens <400> 1327 nnacgcgtga tttcggaact gcagcagttc gagcagtcgc atggacagag cgacgggagc tactggctat ggttcgagct gctgtggcga gactatttcc gctttctgca tcttcggcat ggcgctcggc tgtaccgcgc acgcggcctc gcaaatgagg tacggcacgc ggagcgccca 180 gatgtgcagg gcttcgagcg ctggcgtcgt gcatcgaccg gcgagccgct cgtcgatgcc gegatgegeg agetggagae caeeggetae etcageaaca ggeteagaea ggtggtegeg agctacctcg tgcacgagct ggga 324 <210> 1328 <211> 108 <212> PRT <213> Homo sapiens <400> 1328 Xaa Arg Val Ile Ser Glu Leu Gln Gln Phe Glu Gln Ser His Gly Gln 10 Ser Asp Gly Ser Tyr Trp Leu Trp Phe Glu Leu Leu Trp Arg Asp Tyr 25 Phe Arg Phe Leu His Leu Arg His Gly Ala Arg Leu Tyr Arg Ala Arg 40 45

Gly Leu Ala Asn Glu Val Arg His Ala Glu Arg Pro Asp Val Gln Gly

```
Phe Glu Arg Trp Arg Arg Ala Ser Thr Gly Glu Pro Leu Val Asp Ala
                    70
                                        75
Ala Met Arg Glu Leu Glu Thr Thr Gly Tyr Leu Ser Asn Arg Leu Arg
                                    90
Gln Val Val Ala Ser Tyr Leu Val His Glu Leu Gly
            100
                                105
<210> 1329
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<212> DNA
<213> Homo sapiens
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cagggccttg aagaccatcc tgaatggtta gatgttgaaa tcgatgtggt acctggcatc
totgcaatgc aagctggtgc aagtcgtatt ggtgcgatgt taggtcatga cttttgtacg
gtgagtttgt ctgatttatt aaccccttgg gaaactatta ataaacgtat tcatagtgca
ggtgaggggg attttgttat ctctttttat aaccctgttt ctaagaaacg tgattggcag
cttaaccacg cgcgtgatgt attattgaaa taccgtccag catcaacgcc agttttatta
ggtcgtcagt tgacgcgt
438
<210> 1330
<211> 146
<212> PRT
<213> Homo sapiens
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Xaa Ala Arg Leu Ala Leu Asp Leu Ala Ser Ser Gly Lys Thr Thr Ser
Leu Ile Ser Ser Gly Asp Ile Gly Ile Tyr Ala Met Ala Thr Leu Val
Phe Glu Leu Leu Asp Arg Gln Leu Gln Gly Leu Glu Asp His Pro Glu
                            40
Trp Leu Asp Val Glu Ile Asp Val Val Pro Gly Ile Ser Ala Met Gln
                                            60
Ala Gly Ala Ser Arg Ile Gly Ala Met Leu Gly His Asp Phe Cys Thr
                                        75
Val Ser Leu Ser Asp Leu Leu Thr Pro Trp Glu Thr Ile Asn Lys Arg
                                    90
Ile His Ser Ala Gly Glu Gly Asp Phe Val Ile Ser Phe Tyr Asn Pro
                                105
Val Ser Lys Lys Arg Asp Trp Gln Leu Asn His Ala Arg Asp Val Leu
                            120
Leu Lys Tyr Arg Pro Ala Ser Thr Pro Val Leu Leu Gly Arg Gln Leu
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130
                        135
                                            140
Thr Arg
145
<210> 1331
<211> 453
<212> DNA
<213> Homo sapiens
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teggtgggta egaaegteae eeegateete ggeeceatee tegaeggaeg getggeagge
aacgaagtca ttcgggacac cgacaagggc aatcgacggc gacccactca cgaccgcgcc
gtegggeega tgeagtteat teeggeeace tgggeeggat atgccagega eggeaaeggg
gaeggaatea aggaeeceaa caaegtette gatgeggeae teteggeage gaagtaeete
tgcagcggcg gactcaacct gcgcgatgtc gcccaggaga ccaaagctgt tctgcgatac
aacaactcgg ccgcttacgc agcaaacgtg atc
453
<210> 1332
<211> 151
<212> PRT
<213> Homo sapiens
<400> 1332
Ala Tyr Arg Ser Ala Glu Leu Val Met Met Thr Glu Ala Pro Gly Cys
                5
                                    10
Gly Ile Pro Trp His Leu Leu Ala Gly Ile Gly Arg Ile Glu Ser Gly
                                25
His Ala Asn Gly Gly Lys Thr Thr Ser Val Gly Thr Asn Val Thr Pro
                            40
Ile Leu Gly Pro Ile Leu Asp Gly Arg Leu Ala Gly Asn Glu Val Ile
Arg Asp Thr Asp Lys Gly Asn Arg Arg Pro Thr His Asp Arg Ala
                    70
                                        75
Val Gly Pro Met Gln Phe Ile Pro Ala Thr Trp Ala Gly Tyr Ala Ser
                                    90
Asp Gly Asn Gly Asp Gly Ile Lys Asp Pro Asn Asn Val Phe Asp Ala
            100
                                105
Ala Leu Ser Ala Ala Lys Tyr Leu Cys Ser Gly Gly Leu Asn Leu Arg
                                                125
                            120
Asp Val Ala Gln Glu Thr Lys Ala Val Leu Arg Tyr Asn Asn Ser Ala
                                            140
Ala Tyr Ala Ala Asn Val Ile
145
                    150
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<210> 1333

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<211> 540
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<213> Homo sapiens
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gcgaagggct aaagcggatg gactaagcca gcttgtcatc gatgtcaatg gagacgccgt
cagegtegeg aeggaaatea eeeggeetae tegtetatta geeettattg gaetaaeega
agtacacggt cgggcgagcg aaatgtgtat tttgctggct cgctgaggcc gttgcagcga
300
tacaatgatg aggtgtctaa gtattttccg gtccacccgg agaacccgca gcagcgttct
ctcaatcaga tegtegacat cetgcaccat ggeggtetta tegectacce gacagacaeg
420
ggttatgcct teggtgcccg gntagggaat aaggatgccg tggaccggat tegcaaactt
480
egecagttat ttgacaagca tcacttcace etggtcatga gecagtttge geaggttgge
540
<210> 1334
<211> 70
<212> PRT
<213> Homo sapiens
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Val His Pro Glu Asn Pro Gln Gln Arg Ser Leu Asn Gln Ile Val Asp
Ile Leu His His Gly Gly Leu Ile Ala Tyr Pro Thr Asp Thr Gly Tyr
                                25
Ala Phe Gly Ala Arg Xaa Gly Asn Lys Asp Ala Val Asp Arg Ile Arg
                            40
Lys Leu Arg Gln Leu Phe Asp Lys His His Phe Thr Leu Val Met Ser
                        55
                                             60
Gln Phe Ala Gln Val Gly
                    70
<210> 1335
<211> 748
<212> DNA
<213> Homo sapiens
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gtgaatgcca agaagaagcg tcgtgaggtc ctcgatcagg cctccqgtta ccgtggtcag
cgctcgcgcc tgtaccgcaa ggccaaggag cagaccetec attcggccac ttattcgttc
180
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cgtgaccgtc gtgctaagaa gggtgacttc cgctcgctgt ggatccagcg catcaatgct
240
getteeegtg ceeagggeat gacetacaac egttteatea aeggtetgaa gaaegetgge
300
gtegaggteg accgcaagat gctegetgag cttgccqtct ccgacattaa cgccttcaac
360
agcetggtcg aggtcgctaa ggctagccag ccgcagaacg ctgctgcctg agatggccat
420
gactggcggg ccgaacgacg actatttggg atgggatcgc atctcgaagg ggtcattgcg
ttcggcccgt cgtctttcat ctcggcgcgg acgcgatgag tccgggctgt tcttggtaga
aggtgegeag geagttegtg aageeetage atggeegggt aaagteaatt tgttggeaac
cteggaceca getegegatg etgageatgt egaggtgget acatgtegtg gegttegggt
cgtggtgctc actgacgagg atgtcaatgc gctttctgat accgtcacca gtcaggggat
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748
<210> 1336
<211> 136
<212> PRT
<213> Homo sapiens
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1
Val Lys Arg Ser Val Asn Ala Lys Lys Lys Arg Arg Glu Val Leu Asp
            20
Gln Ala Ser Gly Tyr Arg Gly Gln Arg Ser Arg Leu Tyr Arg Lys Ala
Lys Glu Gln Thr Leu His Ser Ala Thr Tyr Ser Phe Arg Asp Arg Arg
                                            60
                        55
Ala Lys Lys Gly Asp Phe Arg Ser Leu Trp Ile Gln Arg Ile Asn Ala
                    70
                                        75
Ala Ser Arg Ala Gln Gly Met Thr Tyr Asn Arg Phe Ile Asn Gly Leu
                85
                                    90
Lys Asn Ala Gly Val Glu Val Asp Arg Lys Met Leu Ala Glu Leu Ala
                                105
Val Ser Asp Ile Asn Ala Phe Asn Ser Leu Val Glu Val Ala Lys Ala
                            120
                                                125
Ser Gln Pro Gln Asn Ala Ala Ala
    130
                        135
<210> 1337
<211> 364
<212> DNA
<213> Homo sapiens
<400> 1337
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60
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aggeagaete ageteatggg egageatgte agtgaaggge aeageaagge teaegagtgg
120
geetettgee teatggteag tgtgggteag tgettteget gtatgagaet acagggttte
tetgeeteae catgggggae gattgggtet gggteaette etgetgtggg acetgteetg
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gccc
364
<210> 1338
<211> 96
<212> PRT
<213> Homo sapiens
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1
Ser Cys Leu Met Val Ser Val Gly Gln Cys Phe Arg Cys Met Arg Leu
            20
                                25
Gln Gly Phe Ser Ala Ser Pro Trp Gly Thr Ile Gly Ser Gly Ser Leu
Pro Ala Val Gly Pro Val Leu Gly Thr Ala Gly Cys Gly Ala Gly Leu
                        55
Leu Arg Ala Ser Tyr Gln Met Pro Ala Ala Pro Pro Glu Val Thr Thr
                                        75
                    70
Thr Thr Ile Ser Arg Cys Cys Gln Cys Pro Leu Gly Val Arg Val Ala
                85
                                    90
<210> 1339
<211> 653
<212> DNA
<213> Homo sapiens
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360
geogagttog ogcagatgge gggogoogat ogogtogagg getgtttett tggccccgge
gagcgcccgg gcaccgtcga cctggtcacc ctgggcatga acctcgtcag ccagggagtt
480
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gacgccggta tcgacttctc cgacatqccc aaqatccgcc gcaccgtcga gtactgcacc
tgtctgccag taccggcccg ccagccctac tccggcgatc tggtcttcac cgccttctcc
ggttcccacc aggacgccat caagaagggt ctggaagacc tggcccggcg cgc
653
<210> 1340
<211> 217
<212> PRT
<213> Homo sapiens
<400> 1340
Arg Val Val Phe Asn Ile Asp Glu Lys Gln Cys Ile Asp Leu Ala His
Arg Gly Thr Glu Trp Val Val Arg Tyr Ala Asp Lys Tyr Leu Gly Asp
                                25
Val Glu Phe Gly Tyr Glu Tyr Ser Pro Glu Met Phe Ser Gln Thr Arg
Thr Asp Phe Ala Ile Asp Val Cys His Ser Val Met Asp Val Trp Gln
Pro Gly Pro Gly Arg Glu Ile Ile Leu Asn Leu Pro Ala Thr Val Glu
                    70
                                        75
Met Ser Thr Pro Asn Thr Tyr Ala Asp Gln Ile Glu Tyr Phe Cys Arg
                85
                                    90
Asn Ile Arg Asp Arg Glu His Val Cys Val Ser Leu His Pro His Asn
            100
                                105
Asp Arg Gly Thr Ala Ile Ala Ala Ala Glu Phe Ala Gln Met Ala Gly
                            120
                                                 125
Ala Asp Arg Val Glu Gly Cys Phe Phe Gly Pro Gly Glu Arg Pro Gly .
                        135
                                            140
Thr Val Asp Leu Val Thr Leu Gly Met Asn Leu Val Ser Gln Gly Val
                    150
                                        155
Asp Ala Gly Ile Asp Phe Ser Asp Met Pro Lys Ile Arg Arg Thr Val
                                    170
                165
Glu Tyr Cys Thr Cys Leu Pro Val Pro Ala Arg Gln Pro Tyr Ser Gly
                                185
                                                     190
Asp Leu Val Phe Thr Ala Phe Ser Gly Ser His Gln Asp Ala Ile Lys
Lys Gly Leu Glu Asp Leu Ala Arg Arg
    210
                        215
<210> 1341
<211> 666
<212> DNA
<213> Homo sapiens
<400> 1341
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gcaaagtttc ttgccttgct ttgatcatat tttcacaact ggattcccaa cagaagtgtg
gcaatctgta atagaaaagt tggcaaagaa aggattatgg cattcatttc tgcttctgtc
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cctcatgcga ctctgtatcc aagccagaga aaaccatctt ttccggtggt taatggatca
caagcccgag tggaaaggcc gcattaacca gaaggatggg gatggctgca ctgtcctgca
egtegteget geceaetece caggatacet egttaagega caaacagagg atgtgcagat
gctcctgcgc tttggggcag atcccacttt gctggatcga cagtctcggt ctgttgtgga
tgtcctgaag aggaataaga acttcaaagc catcgagaaa atcaacagtc acttagaaaa
660
gctagc
666
<210> 1342
<211> 209
<212> PRT
<213> Homo sapiens
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Met Ser Ser Asp Ser Ile Val Leu Gln Ser Phe Leu Pro Cys Phe Asp
His Ile Phe Thr Thr Gly Phe Pro Thr Glu Val Trp Gln Ser Val Ile
Glu Lys Leu Ala Lys Lys Gly Leu Trp His Ser Phe Leu Leu Leu Ser
Ala Lys Lys Asp Arg Leu Pro Arg Asn Ile His Val Pro Glu Leu Ser
Leu Lys Ser Leu Phe Glu Lys Tyr Val Phe Ile Gly Leu Tyr Glu Lys
                    70
Met Glu Gln Val Pro Lys Leu Val Gln Trp Leu Ile Ser Ile Gly Ala
                                    90
Ser Val Glu Thr Ile Gly Pro Tyr Pro Leu His Ala Leu Met Arg Leu
                                105
Cys Ile Gln Ala Arg Glu Asn His Leu Phe Arg Trp Leu Met Asp His
                            120
                                                125
Lys Pro Glu Trp Lys Gly Arg Ile Asn Gln Lys Asp Gly Asp Gly Cys
                        135
Thr Val Leu His Val Val Ala Ala His Ser Pro Gly Tyr Leu Val Lys
                    150
                                        155
Arg Gln Thr Glu Asp Val Gln Met Leu Leu Arg Phe Gly Ala Asp Pro
                                    170
Thr Leu Leu Asp Arg Gln Ser Arg Ser Val Val Asp Val Leu Lys Arg
                                185
Asn Lys Asn Phe Lys Ala Ile Glu Lys Ile Asn Ser His Leu Glu Lys
                                                205
                            200
Leu
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<210> 1343
<211> 270
<212> DNA
<213> Homo sapiens
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aaaagctgtg gaaaccgaaa tgagactcca tcggacccag tcataattga cagattcttt
120
ttaaaatttt tcctcaagtg caatcagaat tgtttgaaaa cagcaggaaa cccaagggac
atgagacggt ttcaggttgt gttgtcaaca acggtgaatg tggatggaca cgtcctggct
gtttctgaca acatgtttgt tcataacaac
270
<210> 1344
<211> 90
<212> PRT
<213> Homo sapiens
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Pro Glu Met Cys Arg Val Leu Leu Thr His Glu Val Met Cys Ser Arg
Cys Cys Glu Lys Lys Ser Cys Gly Asn Arg Asn Glu Thr Pro Ser Asp
                                25
Pro Val Ile Ile Asp Arg Phe Phe Leu Lys Phe Phe Leu Lys Cys Asn
                            40
Gln Asn Cys Leu Lys Thr Ala Gly Asn Pro Arg Asp Met Arg Arg Phe
                        55
Gln Val Val Leu Ser Thr Thr Val Asn Val Asp Gly His Val Leu Ala
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                    70
Val Ser Asp Asn Met Phe Val His Asn Asn
                85
<210> 1345
<211> 402
<212> DNA
<213> Homo sapiens
<400> 1345
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egecagaegg gegtegteae gecetatgee ggeategtet aegaeetgaa tgacatetgg
teggtgtaca ecagetacae caagatetae aageegeaga acageaagga egeegaeege
aagttgctcg atccgattga aggtgacacc tacgaagccg ggctcaaggc agcgtttttc
gacggccgcc tgaacgccag ttttgccgca ttccgcatcg aacaggacaa cgtcgcacag
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tacgtttccg ggtttgagac cgactcgtgt atcgcccatt gc
402
<210> 1346
<211> 134
<212> PRT
<213> Homo sapiens
<400> 1346
Thr Arg Leu Lys Pro Thr Asp Asp Leu Ser Val Ile Leu Gly Thr Arg
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Val Ser Asn Phe Ser Gly Thr Asp Asn Thr Asp Phe Tyr Asp Pro Thr
Lys Ala Asp Asn Arg Leu Thr Tyr Arg Gln Thr Gly Val Val Thr Pro
Tyr Ala Gly Ile Val Tyr Asp Leu Asn Asp Ile Trp Ser Val Tyr Thr
Ser Tyr Thr Lys Ile Tyr Lys Pro Gln Asn Ser Lys Asp Ala Asp Arg
                    70
                                         75
Lys Leu Leu Asp Pro Ile Glu Gly Asp Thr Tyr Glu Ala Gly Leu Lys
                                     90
Ala Ala Phe Phe Asp Gly Arg Leu Asn Ala Ser Phe Ala Ala Phe Arg
                                 105
Ile Glu Gln Asp Asn Val Ala Gln Tyr Val Ser Gly Phe Glu Thr Asp
                             120
Ser Cys Ile Ala His Cys
    130
<210> 1347
<211> 415
<212> DNA
<213> Homo sapiens
<400> 1347
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tagggcgagg gaacccagct aggggctggg gataaaaaat aagaaataac tgaaggacct
tgctcttaag gaactccatc ttactgggtg gagccaaacg agaaaagaga gctcgggagg
gcaccaaagc ggtcttgccg aaattgcctg aggcagggga aggggcacgc tttctgaaaa
accecccaa accgatteca ggaageecaa agggeggeee etetgeeege ageaetgeet
teaegtttac ttecateceg geeteeteet teeectaagg ettggeatge aacateeetq
cttctcaccc accttttatt taagactcct attatctgca cacaatggaa gttag
415
<210> 1348
<211> 105
<212> PRT
<213> Homo sapiens
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Gly Leu Pro Gly Ile Gly Leu Gly Gly Phe Phe Arg Lys Arg Ala Pro
                                25
Ser Pro Ala Ser Gly Asn Phe Gly Lys Thr Ala Leu Val Pro Ser Arg
        35
                            40
                                                45
Ala Leu Phe Ser Arg Leu Ala Pro Pro Ser Lys Met Glu Phe Leu Lys
                                            60
Ser Lys Val Leu Gln Leu Phe Leu Ile Phe Tyr Pro Gln Pro Leu Ala
Gly Phe Pro Arg Pro Ser Gln Ser Leu Ile Asn Ala Ser Trp Asn Glu
                85
                                    90
Arg Met Arg Ala Cys Pro Glu Gly Gly
            100
<210> 1349
<211> 924
<212> DNA
<213> Homo sapiens
<400> 1349
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gcacgtgggg gctcaagcct cggcgtcaca aaagtcgatg gcgtcgacga tcttcctcag
geogtegega aegeetatge etatgaegae atggttgtag tegaggaatt cattgtggge
aacgaactcg caataggcat gatcacgacg totgaaggca cgcgtgtgct gccagccgtc
gagattegee etgteggtgg tgtttatgat tatteagega tgtacaeegg tggtgagaea
cgactaacag ctcctgcaga cattagcgat acggcggccc aaaccgcgac ggcgatggcc
cgagtcgtgc aaaaggagct cgatttctcc gggatatctc gtgtcgatgc gatcgtggac
480
gagtccggtc gcccagtttt cttggaggcc ggtgctgctc ccgggatgac agctacttcg
540
ctegtaceeg tggctatgaa agetgeeggt ctagacettg gegaggtgtg etetegaeta
gtcgatgacg tcgctcgcaa ccatggctga cagtgtgcac acgaggggct cgcgccacgc
cgtgcgcgtc aagcaggcat ctgtcgtctt gctcggcgtc gtccttgcca gtgtgatggt
720
cttcctcgga ctgtggcaga tgaacgtttt tgagtcccaa cgtgacgact cgacgcaggc
gcgtatcaac gagccagtga tcacctggaa tgaggcgcct aagaaggcca gtgtcatggc
tcagtacgga cgccgggtga cggtgacggg cacgttccaa ccgtcgacca caaccttgat
aggeacateg tggccagtac gegt
924
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<210> 1350
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<212> PRT
<213> Homo sapiens
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Ala Gly Ile Val Thr Pro Gln Gln Val Ala Leu Pro His Asp Val Phe
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Arg Glu Leu Gly Ala Gln Thr Val Met Arg Ser Ile Ala Glu Lys Leu
Gly Leu Pro Val Ile Val Lys Pro Ala Arg Gly Gly Ser Ser Leu Gly
                            40
Val Thr Lys Val Asp Gly Val Asp Asp Leu Pro Gln Ala Val Ala Asn
                        55
Ala Tyr Ala Tyr Asp Asp Met Val Val Val Glu Glu Phe Ile Val Gly
                    70
                                        75
Asn Glu Leu Ala Ile Gly Met Ile Thr Thr Ser Glu Gly Thr Arg Val
Leu Pro Ala Val Glu Ile Arg Pro Val Gly Gly Val Tyr Asp Tyr Ser
                                105
            100
Ala Met Tyr Thr Gly Gly Glu Thr Arg Leu Thr Ala Pro Ala Asp Ile
                            120
Ser Asp Thr Ala Ala Gln Thr Ala Thr Ala Met Ala Arg Val Val Gln
    130
Lys Glu Leu Asp Phe Ser Gly Ile Ser Arg Val Asp Ala Ile Val Asp
                                        155
                    150
Glu Ser Gly Arg Pro Val Phe Leu Glu Ala Gly Ala Ala Pro Gly Met
                                    170
                165
Thr Ala Thr Ser Leu Val Pro Val Ala Met Lys Ala Ala Gly Leu Asp
                                185
            180
Leu Gly Glu Val Cys Ser Arg Leu Val Asp Asp Val Ala Arg Asn His
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Gly
<210> 1351
<211> 398
<212> DNA
<213> Homo sapiens
<400> 1351
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gacgagacgc aaaacgcatt gcttctcagt attctgctgc accccggtct gctcatcgtc
qaccacattc acttccagta caacqqqttc ctaattcgcg ggccccttta tcgtttgggg
geoegeacgg acgeategge cetettete tgaacegeee tgtttgeete getgetecag
ttcaagcaca tttacgtata cgtcgcgccg gcgtactttg tgtacctgct gcgtgcgtac
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aagettggeg cagegaeget ggtgeettee tgetgage
<210> 1352
<211> 70
<212> PRT
<213> Homo sapiens
<400> 1352
Xaa Cys Thr Glu Gly Val Leu Val Tyr Ala Leu Tyr Leu Leu Ser Arg
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                                     10
Cys Thr Met Gly Asp Glu Thr Gln Asn Ala Leu Leu Leu Ser Ile Leu
            20
Leu His Pro Gly Leu Leu Ile Val Asp His Ile His Phe Gln Tyr Asn
                            40
Gly Phe Leu Ile Arg Gly Pro Leu Tyr Arg Leu Gly Ala Arg Thr Asp
                                             60
                        55
Ala Ser Ala Leu Phe Leu
65
<210> 1353
<211> 480
<212> DNA
<213> Homo sapiens
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ggcaacatgc tectggtggg tategggggc ageggaegec agagtetgge cegeetgget
tcatccatct gcgactacac caccttccag atcgaggtca ccaaacatta tcggaagcag
gagttccgag atgatatcaa gcgtctgtat cgccaggctg gggtggagct caagaccacg
teetteattt ttgtggacae ceaaataget gatgagteet teetagagga cateaacaae
atcctcagct caggcgaggt gccccatctt ttcaggcctg atgaatttga agagatccag
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480
<210> 1354
<211> 160
<212> PRT
<213> Homo sapiens
<400> 1354
Xaa Ala Pro Ile Pro Ser Leu Gly Pro Gly Gly Pro Leu Ser Leu Leu
                                    10
Ser Gln Leu Ile Thr Leu Thr Pro Thr Pro Pro Pro Val Thr Arg Ile
                                25
Val Arg Gly Ile Gly Gln Pro Arg Gly Asn Met Leu Leu Val Gly Ile
```

45

40

35

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Gly Gly Ser Gly Arg Gln Ser Leu Ala Arg Leu Ala Ser Ser Ile Cys
Asp Tyr Thr Thr Phe Gln Ile Glu Val Thr Lys His Tyr Arg Lys Gln
                    70
Glu Phe Arg Asp Asp Ile Lys Arg Leu Tyr Arg Gln Ala Gly Val Glu
                                    90
Leu Lys Thr Thr Ser Phe Ile Phe Val Asp Thr Gln Ile Ala Asp Glu
            100
                                105
Ser Phe Leu Glu Asp Ile Asn Asn Ile Leu Ser Ser Gly Glu Val Pro
                                                 125
                            120
His Leu Phe Arg Pro Asp Glu Phe Glu Glu Ile Gln Ser His Ile Ile
                                             140
Asp Gln Ala Arq Val Glu Gln Val Pro Glu Ser Ser Asp Ser Leu Phe
145
                    150
                                        155
<210> 1355
<211> 1063
<212> DNA
<213> Homo sapiens
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geoetgteet aggeeecace eggteagtge acacetgete eccagteeeg cetecacaaa
120
ggccctgtga gaccctgtcc tccaccgcct ctttccttgt gtccattccc tgagcctggg
gaagttgcgt cagagccaca ggtcggngag acgctgagtc tgggcgagcg cttgctgccg
gacagctgga gaaacagcag cggggggccg tgtccatgtg gcaagccaag ccatcgaggg
gatcacaggc cccttcaggg aagggactga gcacctgcca cctgcctcca ggatgggcct
360
gatececet cetgtgtace ceacaggetg cagtgeacet gecageacaa cacetgeggg
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aacagtgcca acgagtgcca gtcctgtaac tgctacggcc atgccaccga ctgttactac
gaccetgagg tggaceggeg cegegecage cagageetgg atggeaceta teagggtggg
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720
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900
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960
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agggtgggcc gctgttttgc caaccccaac ttccaaggca cccattgtga gctctgcgcg

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1063
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<211> 244
<212> PRT
<213> Homo sapiens
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Ala Pro Ala Thr Cys Leu Gln Asp Gly Pro Asp Pro Pro Ser Cys Val
                                                        15
                                   10
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Pro His Arg Leu Gln Cys Thr Cys Gln His Asn Thr Cys Gly Gly Thr
Cys Asp Arg Cys Cys Pro Gly Phe Asn Gln Gln Pro Trp Lys Pro Ala
                            40
Thr Ala Asn Ser Ala Asn Glu Cys Gln Ser Cys Asn Cys Tyr Gly His
Ala Thr Asp Cys Tyr Tyr Asp Pro Glu Val Asp Arg Arg Ala Ser
                    70
Gln Ser Leu Asp Gly Thr Tyr Gln Gly Gly Gly Val Cys Ile Asp Cys
                85
Gln His His Thr Ala Gly Val Asn Cys Glu Arg Cys Leu Pro Gly Phe
                                                    110
           100
                                105
Tyr Arg Ser Pro Asn His Pro Leu Asp Ser Pro His Val Cys Arg Arg
                            120
                                                125
Cys Asn Cys Glu Ser Asp Phe Thr Asp Gly Thr Cys Glu Asp Leu Thr
                       135
                                            140
Gly Arg Cys Tyr Cys Arg Pro Asn Phe Ser Gly Glu Arg Cys Asp Val
                    150
Cys Ala Glu Gly Phe Thr Gly Phe Pro Ser Cys Tyr Pro Thr Pro Ser
                                    170
                165
Ser Ser Asn Asp Thr Arg Glu Gln Val Leu Pro Ala Gly Gln Ile Val
                                185
           180
Asn Cys Asp Cys Ser Ala Ala Gly Thr Gln Gly Asn Ala Cys Arg Lys
                            200
Asp Pro Arg Val Gly Arg Cys Phe Ala Asn Pro Asn Phe Gln Gly Thr
                                            220
                        215
His Cys Glu Leu Cys Ala Pro Gly Phe Tyr Gly Pro Gly Cys Pro Gly
                    230
                                        235
Ser Leu His Ala
<210> 1357
<211> 663
<212> DNA
<213> Homo sapiens
<400> 1357
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660
ctq
663
<210> 1358
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<213> Homo sapiens
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Val Asp Arg Tyr Pro Ser Trp Ser Ser Trp Ser Ile Tyr Gly Pro Arg
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Cys Gly Phe Gly Thr Glu Val Glu Phe Asn Thr Pro Val Leu Pro Val
                            40
Gly Gly Val Arg Pro Val Ile Leu Gln Arg Pro Gly Trp Cys Pro Gly
Val Phe Val Gly Leu Pro Asn His His Leu Asp Gly Val Ala Met Trp
                    70
Cys Glu Leu Leu Ala Ala Val Phe Cys Ala Arg Ala Cys Leu Ala Trp
                                    90
                85
Leu Gln Glu Ser Leu Ala His Arg Ala Ser Ala Ser Val Lys Ser Gln
                                105
                                                    110
Leu Arg Arg Asp Ile Leu Gln Ala Arg Leu Ser Arg Pro Thr Asp Ala
                            120
Thr Met Pro Ser Arg Thr Leu Ile Ser Leu Met Thr Thr Gly Leu Asp
                        135
                                            140
Ala Leu Asp Gly Tyr Tyr Ser Lys Tyr Leu Pro Gln Leu Val Leu Ala
                    150
                                        155
Val Ile Val Pro Ala Val Leu Ala Thr Ala Ile Gly Leu Asn Asp Leu
                                    170
Thr Ser Leu Val Ile Val Val Val Thr Ile Pro Leu Ile Pro Val Phe
                                185
Met Ala Leu Ile Gly Trp Arg Thr Glu Ala Ala Val Ala Lys Arg Phe
                            200
Lys Val Ala Thr Arg Leu Ala Asn His Phe Ala Asp Leu
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215
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<210> 1359
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<212> DNA
<213> Homo sapiens
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120
ctatttgctt aatagataga gaggtgtagt cagctagcca atagccgact ggcatcgcca
cgacgtaatc gtcttcccat aaagggtaaa atacatcatc ttctttggtg taactgtcgc
aagtaaagcg taaatcagcg ctttctgagg catcgactaa actgagtgtg agtcctggaa
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420
ctt
423
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<211> 104
<212> PRT
<213> Homo sapiens
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Asp Val Phe Tyr Pro Leu Trp Glu Asp Asp Tyr Val Val Ala Met Pro
Val Gly Tyr Trp Leu Ala Asp Tyr Thr Ser Leu Ser Ile Lys Gln Ile
Asp Lys Gln Pro Phe Val Ser Arg Thr Pro Cys Asp Ile Leu Glu Ser
Trp Asn Phe Ile Met Gln Lys Gln Gly Leu Ser Thr Asp Val Arg Ala
                                    90
                85
Gln Val Lys Thr Glu Glu Tyr Ala
            100
<210> 1361
<211> 5300
<212> DNA
<213> Homo sapiens
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ggcgcagggc 240	gcccgcagcg	ctgcctgccg	gtgttcgaga	acgcggcgtt	tgggcggctc
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cacggcgggc 1200	gctgtcacca	ctgccgtgac	cacacagctg	ggccacactg	tgagcgctgt
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1320			acaggcacct		
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1620			catcacatcc		
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1800		tgggcagccc			
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2100		ccggctcaca			
2160		atgtcccact			
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2280		ctgtgacccc			_
2340		acgctgtttg			
2400		ctgtccctgc			
2460		tacccactgc			
2520	•	tggggacccg			
2580		gaacgtggac			
2640		cctgcacaac			
2700					
2760		cagtgagcag			
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Cvs	Asn	Glv		Ala	Ser	Glu	Cvs		Pro	Asp	Val	Ala	_	Gln	Leu
-1-		275					280	,				285			
Ala	Cys	Arg	Cys	Gln	His	Asn	Thr	Thr	Gly	Thr	Asp	Cys	Glu	Arg	Cys
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Leu	Pro	Phe	Phe	Gln	Asp	Arg	Pro	Trp	Ala	Arg	Gly	Thr	Ala	Glu	Ala
305					310					315					320
Ala	His	Glu	Cys	Leu	Pro	Cys	Asn	Cys		Gly	Arg	Ser	Glu		Cys
	_			325			_	_	330					335	_
Thr	Phe	Asp		Glu	Leu	Phe	Arg		Thr	GIY	His	GIY		Arg	Cys
***	***	a	340	3	***	mh	×1.	345	D~0	uic	Cve	C1	350	Crrc	Cl n
uis	His	355	Atg	ASP	піз	1111	360	GLY	PIO	nis	cys	365	Arg	Cys	GIII
Glu	Asn		Tvr	His	Tro	Asp		Ara	Met	Pro	Cvs		Pro	Cvs	Asp
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Cys	Gln	Ser	Ala	Gly	Ser	Leu	His	Leu	Gln	Cys	Asp	Asp	Thr	Gly	Thr
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Cys	Ala	Cys	Lys	Pro	Thr	Val	Thr	Gly	Trp	Lys	Cys	Asp	Arg	Cys	Leu
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Pro	Gly	Phe		Ser	Leu	Ser	Glu	-	Gly	Cys	Arg	Pro		Thr	Cys
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Asn	Pro	435	GIY	ser	Leu	Asp	1111 440	Cys	Asp	Pro	Arg	ser 445	GIY	Arg	Cys
Dro	Cys		Glu	Δen	Va 1	Glu		Δsn	T.em	Cvs	Asn		Cvs	Arα	Pro
FIO	450	цуз	GIU	ASII	Val	455	GIY	AJII	Deu	Cys	460	n.y	Cyo	9	110
Gly	Thr	Phe	Asn	Leu	Gln		His	Asn	Pro	Ala		Cys	Ser	Ser	Cys
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Val	His	His		Leu	Ser	Asp	Phe		Gln	Gly	Ala	Glu		Trp	Trp
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Ala	Arg		val	GIY	GIA	Ser	520	HIS	ser	Pro	Gin	525	ser	Pro	Asn
Clv	Val	515	LOU	Sar	Pro	Glu		Glu	Glu	Glu	T.011		Δ] =	Pro	Glv
GIY	530	neu	Deu	361	FIO	535	ASP	GIU	Giu	014	540	****	ALU	110	Cly
Lvs	Phe	Leu	Glv	Asp	Gln		Phe	Ser	Tyr	Gly		Pro	Leu	Ile	Leu
545			•	-	550				•	555					560
Thr	Phe	Arg	Val	Pro	Pro	Gly	Asp	Ser	Pro	Leu	Pro	Val	Gln	Leu	Arg
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Leu	Glu	_		-	Leu					Arg	His	Ser		Leu	Ser
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Gly	Pro		Asp	Ala	Arg	Ala		GIn	GIY	GIA	Arg		GIn	Val	Pro
T 0	Gln	595	The	50-	C1	N am	600	או א	Dvo	Dro	Tan	605 Bro	Bro	Dha	uic
Leu	610	GIU	1111	ser	GIU	615	vai	Ата	PLO	PIO	620	FIO	FIU	FILE	nra
Phe	Gln	Ara	Leu	Leu	Ala		Leu	Thr	Ser	Leu		Leu	Ara	Val	Ser
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		_	_												
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	690					695					700				
Va 1		Cvs	Thr	Cvs	Asn		Hie	Gly	Thr	Cve		Pro	·Acn	Thr	Glv
705		0,0		C 7 D	710	01	23	Gry	1114	715	nop	FIO	ASII	****	720
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Ser	Glv		Val	٧al	Cys	Thr		Cvc	Pro	Pro	Glv		Δτα	Glv	Δrσ
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HIS			GIn	Cys	Pro								GIU	GIu	Thr
א ו א	1010	•	*	77-						~1			T	01 -	a 1
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ALY.	Jiu	1075		₽€U	GIU	3111	1080		GIY	neu	G L U	1085		val	nys
Δ1 =	Δla			G1 ~	Leu				Den	Lve	GI v			Cvc	~ [מ
	1090		GIU	GTII	nen	1095	_	חבת	Vall	Lys	1100		vra	-ys	vrq
Gla			Ser	G1 =	Lys			ሞኮ~	Gln	T.e.ii			1,611	G1,,	Δlo
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		Gl.	Ser	Ser	Glu		Glu	Tle	T.e.11			Ala	Δla	Tle	
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				112	5				113	0				113	5
Ala	Ser	Leu	Glu 114		Pro	Gln	Glu	Gly 114		Ser	Gln	Pro	Thr 115	_	Trp
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                             40
 Phe Met Val Ala Pro Pro Met Arg His Leu His Leu Pro Ser His Pro
                                             60
 Leu Lys Gln Pro His Leu Cys Arg Phe Arg Arg Phe Leu Leu Arg Leu
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Lys Ser Val Ala Val Asn Lys Gly Arg Leu Lys Arg Leu Gly Ile Thr
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Val Glu Gly Glu Ser Ser Gly Ala Gly Leu Ser Ala Asp Arg Arg
Ser Leu Cys Ala Arg Glu Phe Arg Lys Leu Gly Phe Ser Asn Ser Asn
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Arg	inr	ASII		Ald	TIE	val	гåа		GIU	ASII	ser	rrp		Asn	гÀз
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Gl II	Ton		Two	Тъ съ-	Lan	Th~		λοπ	7 55) CD	Dro		Wi c	Thr	Tue
GIU	210	Deu	пуз	TYL	Leu	215	1111	AŞII	ASP	ASP	220	PIO	nis	1111	цуs
Pro		Glu	λen	Δrα	Acn		Ser	λνα) en	Lare	_	Thr	Sar	Lys	Lare
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Lys	Thr	Val	Val	Pro	Pro	Pro	Ser	Lys	Lys	Pro	Arg	Tyr	Ser	Glu	Ser
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Tvr	Leu	Arg		Thr	Leu	Glu	Ala		Lvs	Gln	Val	Ser		Cys	Ser
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Glv	Tvr	Phe	Glu		Ser	Pro	T.eu	Met			Pro	Val	Trn		
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Tur	Δτα	Pro		Δνα	Phe	T.011	λen		λcn	Sar	Glv	T.AII		Gly	ī au
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Gln	Dhe		Ara	7.011	His	Δτα			Δνα	Dro	λen		λνα	T.611	G3 11
GIII	290	ı y L	Arg	Deu	nis	295	GIU	GIU	Arg	FIU	300	TYL	AIG	Leu	GIU
Cve		Gln	Twn	T 011	Lys		GI n	Dro	7 ~~	Twn		502	T	C111	T~~
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	C1 n	Ua I	602	C110	Pro	C115	C ~ ~	T-m	C1-		C1	7	N	7 ~~	
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7	Dha	~1 <u>~</u>	D		C	T1 ~	~1	7	330	~1	*	a 1		335	63 -
Arg	Pne	GIII		vaı	Ser	TIE	GIY		Trp	GIY	Leu	GIY		Arg	GIN
t	C	C	340	m\	C	///	T	345	~1	17m 3	~		350	T	01
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240
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Ile Ala Ala Thr Ile His Ser Pro Glu Arg Ala Gln Asp Met Val Asn
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Arg Leu Ser Lys Arg Glu Glu Gly Phe Thr Gln Trp Val Arg Ala Ala
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                                                45
Gln Asp Asp Gly Arg Leu Ser Cys Ser Asp Pro Ala Phe Ala Ala His
Gln Ile Gln Ser Leu Leu Lys Ala Phe Ala Phe Trp Pro Gln Ile Thr
Leu Gly Gln Pro Val Leu Asp Ala Ala Ser Gln Ala Asn
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<400> 1400

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Phe Lys Ser Cys His Val Ile Ser Thr His Asn Leu Trp His Phe Ser
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Phe Phe Thr Leu Tyr Ser Leu Ile Thr Tyr Thr Cys Thr Cys Leu Lys
Cys Gln Thr Ile Gln Met Gly Thr Lys Lys Ile Ala Ser Pro Ser Val
Asn Pro Ser Phe Cys Ser Pro Leu His Ala
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Xaa Ser Ser Pro Ala Arg Arg Trp Xaa Leu Gly Phe Asp Gly Arg Val
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Ser Leu Leu Gly Ala Ile Leu Ile Val Thr Gly Pro Thr Val Ile
Asn Pro Ile Leu Arg Gln Leu Arg Pro Thr Arg Arg Val Ser Ala Leu
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Leu Arg Trp Glu Gly Ile Val Val Asp Pro Leu Gly Ala Ile Leu Ala
Leu Leu Val Tyr Gln Ala Ile Thr Ser Ile Asp Arg Ser Ser Ile Gly
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Gln Gly Val Leu Asn Leu Gly Leu Thr Leu Leu Val Gly Leu Leu Phe
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                                                 125
Ala Gly Pro Ile Gly Trp Ile Val Thr Ala Met Met Lys Arg His Leu
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Ile Pro Asp Phe Leu Gln Gly Val Ile Phe Val Gly Val Ala Val Gly
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Thr Cys Val Gly Ala Asn Val Ile Arg Glu Glu Ser Gly Leu Val Ala
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Val Thr Met Leu Gly Ile Tyr Leu Ala Asn Gln Arg Asn Leu Glu Leu
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Glu Pro Val Ile Glu Phe Lys Glu His Leu Gln Val Leu Leu Val Gly
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Lys Val Leu Leu Ala Arg His Gln Leu Val Glu Asn Asp Lys Ile Arg
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Asn Gly Asn Arg Glu Ala Leu Thr Ala Leu Arg Lys Gln Ala Arg Thr
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Ser Lys Thr Ser Val Pro Ser Pro Phe Glu Val Ile Met Lys Glu Met
Glu Gly Ser Ser Gly Lys Gln Leu Ile Lys Glu Ile Cys Pro Thr Cys
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Gly Asp His Asp Pro Lys Glu His Thr Trp Leu Met Phe Pro Gly Ser
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                                    90
Asp Met Phe Ala Arg Val Pro Phe His Val Ala His Thr Val Val Glu
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Lys Asp Gln Glu Arg Leu Asp Leu Asp Thr Lys Lys Leu Gln Ser
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Trp Leu Leu Ile Val Pro Ser Gly Glu Glu Phe Ala Ala Glu Gln Asn
                            40
Leu Arg Ala Ala Leu Gly Glu Leu His Ile Gln Val Val Asn Val Ser
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Gly Gly Gln Gln Ile Leu Glu Leu Ser Gly Pro Asn Val Arg Asp Val
                                       75
Leu Met Lys Ser Thr Ser Tyr Asp Val His Pro Asn Asn Phe Pro Val
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Gly Lys Ala Val Gly Thr Val Phe Ala Lys Ser Gln Leu Val Ile Arg
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His Thr Ala Glu Asp Thr Trp Glu Leu Leu Ile Arg Arg Ser Phe Ser
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Asp Tyr Trp Trp Leu Trp Leu Gln Asp Ala Ala Ala
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<213> Homo sapiens
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<400> 1408

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Asp Ser Ala Asn Ala Lys Thr Leu Leu Glu Ala Ala Ser Lys Phe Gln
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Phe His Thr Phe Cys Lys Val Cys Val Ser Phe Leu Glu Lys Gln Leu
                        55
Thr Ala Ser Asn Cys Leu Gly Val Ala Ala Met Ala Glu Ala Met Gln
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                                        75
Cys Ser Glu Leu Tyr His Xaa Ala Lys Ala Phe Ala Leu Gln Ile Phe
               85
                                   90
Pro Glu Val Ala Ala Gln Glu Glu Ile Leu Ser Ile Ser Lys Asp Asp
                               105
Phe Ile Ala Tyr Val Ser Asn Asp Ser Leu Asn Thr Lys Ala Glu Glu
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Leu Val Tyr Glu Thr Val Ile Lys Trp Ile Lys Lys Asp Pro Ala Thr
                        135
Arg Thr Gln Tyr Ala Ala Glu Leu Leu Ala Val Arg Leu Pro Phe
Ile His Pro Ser Tyr Leu Leu Asn Val Val Asp Asn Glu Glu Leu Ile
                                    170
Lys Ser Ser Glu Ala Cys Arg Asp Leu Val Asn Glu Ala Lys Arg Tyr
                                185
His Met Leu Pro His Ala Arg Gln Glu Met Gln Thr Pro Arg Thr Arg
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Pro Arg Leu Ser Ala Gly Val Ala Glu Val Ile Val Leu Val Gly Gly
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Arg Gln Met Val Gly Met Thr Gln Arg Ser Leu Val Ala Val Thr Cys
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                                       235
Trp Asn Pro Gln Asn Asn Lys Trp Tyr Pro Leu Ala Ser Val Pro Phe
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                                   250
Leu Gly Pro Gly Phe Phe Ser Val Val Ser Ala Gly Ala Asn Ile Tyr
                               265
Leu Ser Gly Gly Met Glu Ser Gly Val Pro Leu Ala Asp Val Trp Cys
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Tyr Met Ser Leu Leu Asp Asn Trp Asn Leu Val Ser Arg Met Pro Val
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                                           300
Pro Arg Cys Arg Pro His Ser Leu Val Tyr Asp Gly Lys Ile Tyr Thr
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Leu Gly Gly Leu Gly Val Ala Gly Asn Val Asp His Val Glu Arg
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Gly Arg Pro Ala Ala Arg Asp Ser Thr Met Gln Leu Ile Asp Ile Gly
                                25
Val Asn Leu Thr Asn Ser Ser Phe His Asp Gln Gln Ala Ala Ile Val
                            40
Glu Arg Ala Leu Glu Ala Gly Val Thr Gln Met Leu Leu Thr Gly Thr
                        55
Ser Leu Ala Val Ser Glu Gln Ala Leu Glu Leu Cys His Gln Leu Asp
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                                        75
Ala Ser Gly Ala His Leu Phe Ala Thr Ala Gly Val His
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321
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Arg Leu Ser Ala Phe Arg Glu Trp Leu Glu Met Glu Glu Pro Ser Trp
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Ala His Val Asp Tyr Pro Lys Ile Asp Phe Gln Ser Ile Ser Tyr Tyr
                            40
Ser Ala Pro Lys Ser Met Lys Asp Lys Pro Lys Ser Leu Asp Glu Val
Asp Pro Glu Leu Leu Arg Thr Tyr Glu Lys Leu Gly Ile Pro Leu Ile
Glu Gln Gln Met Leu Ala Gly Ile Ala Val Asp Ala Val Phe Asp Ser
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Val Ser Val Val Thr Thr Phe Arg Gln Lys Leu
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Arg Pro Arg Ala Arg Gly Ser His Arg Leu Ala Ala Leu Glu Ala Glu
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Val Ile Asn Arg Val Leu Ser
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Glu Lys Ala Pro Val Leu Pro Glu Ser Thr Glu Gly Arq Glu Leu Thr
                            40
Gln Gly Pro Ala Glu Ser Ser Leu Ser Gly Cys Gly Ser Trp Gln
    50
                        55
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Pro Arg Lys Leu Pro Val Phe Lys Ser Leu Arg His Met Arg Gln Val
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Leu Gly Ala Pro Ser Phe Arg Met Leu Ala Trp His Val Leu Met Gly
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Asn Gln Val Ile Trp Lys Ser Arg Asp Val Asp Leu Val Gln Ser Ala
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gccacccctc 4800	ttcttgtcac	cgacacttcc	tcagcatcca	caggtcacac	cacccctctt
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tccacaggtc 4980	acgccacccc	tettettgte	accgacactt	cctcagcatc	cacaggtcac
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<210> 1418

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385					390					395					400
Met	Pro	Ile	Ser	Arg	Asp	Ser	Thr	Leu	Gly	Asn	Thr	Glu	Glu	Thr	Ser
				405					410					415	
Leu	Ser	Val	Ser	Gly	Thr	Ile	Ser	Ala	Ile	Thr	Ser	Lys	Val	Ser	Thr
			420	•				425				-	430		
710	Trn	Tra	Ser	N-D	Thr	T.e11	Ser		Δla	T.ess	Ser	Pro		Ser	Leu
116	пр	_	Jer	ASD	1.11	שכע	440		71_4		501	445	-	-	
	_	435		_				'		~3	~3.		-1	~ 3	• • •
Pro	Pro	Lys	Ile	Ser	Thr		Pne	HIS	Inr	Gin		ser	GIU	GIÀ	Ala
	450					455					460				
Glu	Thr	Thr	Gly	Arg	Pro	His	Glu	Arg	Ser	Ser	Phe	Ser	Pro	Gly	Val
465					470					475					480
Ser	Gln	Glu	Ile	Phe	Thr	Leu	His	Glu	Thr	Thr	Thr	Trp	Pro	Ser	Ser
				485					490			-		495	
Dho	502	Sar	Lys		Hic	Thr	Thr	Trn		Gln	Thr	Glu	T.en		Ser
FIIE	261	Ser	500	Gry	1113	1111	1111	505	001	0111		014	510		
	_	_,				m\			17- 1	mla sa	61	3		Com	Th.
Thr	Ser		Gly	АТА	Ala	Inr		Leu	vai	int	GIA		PIO	Ser	Inc
		515					520					525		_	_
Gly	Ala	Ala	Gly	Thr	Ile	Pro	Arg	Val	Pro	Ser	Lys	Val	Ser	Ala	Ile
	530					535					540				
Gly	Glu	Pro	Gly	Glu	Pro	Thr	Thr	Tyr	Ser	Ser	His	Ser	Thr	Thr	Leu
545			-		550			-		555					560
	Lvs	Thr	Thr	Glv		Glv	Ala	Gln	Thr	Gln	Tro	Thr	Gln	Glu	Thr
	,			565		,			570					575	
~1	m)	mb	~1		7 T	T 011	T 011	C		D=0	Co	Тъ.~~	co~		Thr
GLY	Thr	Inr	Gly	GIU	Ата	Leu	Leu		ser	PIO	ser	ıyı		Val	1111
			580					585			_	_	590	_	_
Gln	Met	Ile	Lys	Thr	Ala	Thr	Ser	Pro	Ser	Ser	Ser	Pro	Met	Leu	Asp
		595					600					605			
Arg	Hig	Thr	Ca~	C1-	~1 -	T1.	The	The	77-	D~0	Car	The	7 ~~	TI: a	C
		****	Set	CILL	GIII	TTE	TIIL	TIII	ALA	PIU	261	TILL	MSII	UIS	Ser
	610	****	261	GIII	GIII	615	1111	1111	АТА	PIO	620	1111	ASII	птъ	Ser
_	610					615					620				
Thr	610		Ser		Ser	615				Glu	620				Ser
Thr	610 Ile	His	Ser	Thr	Ser 630	615 Thr	Ser	Pro	Gln	Glu 635	620 Ser	Pro	Ala	Val	Ser 640
Thr	610 Ile	His		Thr	Ser 630	615 Thr	Ser	Pro	Gln Thr	Glu 635	620 Ser	Pro	Ala	Val Gln	Ser 640
Thr 625 Gln	610 Ile Arg	His Gly	Ser His	Thr Thr 645	Ser 630 Gln	615 Thr Ala	Ser Pro	Pro Gln	Gln Thr 650	Glu 635 Thr	620 Ser Gln	Pro Glu	Ala Ser	Val Gln 655	Ser 640 Thr
Thr 625 Gln	610 Ile Arg	His Gly	Ser His Val	Thr Thr 645	Ser 630 Gln	615 Thr Ala	Ser Pro	Pro Gln Asp	Gln Thr 650	Glu 635 Thr	620 Ser Gln	Pro Glu	Ala Ser Thr	Val Gln 655	Ser 640 Thr
Thr 625 Gln Thr	610 Ile Arg Arg	His Gly Ser	Ser His Val 660	Thr Thr 645 Ser	Ser 630 Gln Pro	615 Thr Ala Met	Ser Pro Thr	Pro Gln Asp 665	Gln Thr 650 Thr	Glu 635 Thr Lys	620 Ser Gln Thr	Pro Glu Val	Ala Ser Thr 670	Val Gln 655 Thr	Ser 640 Thr
Thr 625 Gln Thr	610 Ile Arg Arg	His Gly Ser	Ser His Val	Thr Thr 645 Ser	Ser 630 Gln Pro	615 Thr Ala Met	Ser Pro Thr	Pro Gln Asp 665	Gln Thr 650 Thr	Glu 635 Thr Lys	620 Ser Gln Thr	Pro Glu Val	Ala Ser Thr 670	Val Gln 655 Thr	Ser 640 Thr
Thr 625 Gln Thr	610 Ile Arg Arg	His Gly Ser	Ser His Val 660	Thr Thr 645 Ser	Ser 630 Gln Pro	615 Thr Ala Met	Ser Pro Thr	Pro Gln Asp 665	Gln Thr 650 Thr	Glu 635 Thr Lys	620 Ser Gln Thr	Pro Glu Val	Ala Ser Thr 670	Val Gln 655 Thr	Ser 640 Thr
Thr 625 Gln Thr	610 Ile Arg Arg Ser	His Gly Ser Ser 675	Ser His Val 660 Phe	Thr Thr 645 Ser Thr	Ser 630 Gln Pro	615 Thr Ala Met Ser	Ser Pro Thr Gly 680	Pro Gln Asp 665 His	Gln Thr 650 Thr	Glu 635 Thr Lys Pro	620 Ser Gln Thr	Pro Glu Val Glu 685	Ala Ser Thr 670 Ile	Val Gln 655 Thr	Ser 640 Thr Pro
Thr 625 Gln Thr	610 Ile Arg Arg Ser	His Gly Ser Ser 675	Ser His Val 660	Thr Thr 645 Ser Thr	Ser 630 Gln Pro	615 Thr Ala Met Ser	Ser Pro Thr Gly 680	Pro Gln Asp 665 His	Gln Thr 650 Thr	Glu 635 Thr Lys Pro	620 Ser Gln Thr	Pro Glu Val Glu 685	Ala Ser Thr 670 Ile	Val Gln 655 Thr	Ser 640 Thr Pro
Thr 625 Gln Thr Gly	610 Ile Arg Arg Ser Asp 690	His Gly Ser Ser 675 Ala	Ser His Val 660 Phe	Thr Thr 645 Ser Thr	Ser 630 Gln Pro Ala Ile	615 Thr Ala Met Ser 695	Ser Pro Thr Gly 680 Ala	Pro Gln Asp 665 His	Gln Thr 650 Thr Ser	Glu 635 Thr Lys Pro	620 Ser Gln Thr Ser Phe 700	Pro Glu Val Glu 685 Ala	Ala Ser Thr 670 Ile Pro	Val Gln 655 Thr Val	Ser 640 Thr Pro Pro
Thr 625 Gln Thr Gly Gln Thr	Arg Arg Ser Asp 690 Gly	His Gly Ser Ser 675 Ala	Ser His Val 660 Phe Pro	Thr Thr 645 Ser Thr Thr	Ser 630 Gln Pro Ala Ile	615 Thr Ala Met Ser Ser 695 Thr	Ser Pro Thr Gly 680 Ala	Pro Gln Asp 665 His	Gln Thr 650 Thr Ser	Glu 635 Thr Lys Pro Thr	Gln Thr Ser Phe 700 Thr	Pro Glu Val Glu 685 Ala	Ala Ser Thr 670 Ile Pro	Val Gln 655 Thr Val Ala Gln	Ser 640 Thr Pro Pro
Thr 625 Gln Thr Gly Gln Thr 705	Arg Arg Ser Asp 690 Gly	His Gly Ser Ser 675 Ala Asp	Ser His Val 660 Phe Pro	Thr Thr 645 Ser Thr Thr	Ser 630 Gln Pro Ala Ile Thr 710	615 Thr Ala Met Ser Ser 695 Thr	Ser Pro Thr Gly 680 Ala Gln	Pro Gln Asp 665 His Ala	Gln Thr 650 Thr Ser Thr	Glu 635 Thr Lys Pro Thr Thr 715	Gln Thr Ser Phe 700 Thr	Pro Glu Val Glu 685 Ala	Ala Ser Thr 670 Ile Pro	Val Gln 655 Thr Val Ala Gln	Ser 640 Thr Pro Pro Pro
Thr 625 Gln Thr Gly Gln Thr 705	Arg Arg Ser Asp 690 Gly	His Gly Ser Ser 675 Ala Asp	Ser His Val 660 Phe Pro	Thr Thr 645 Ser Thr Thr His	Ser 630 Gln Pro Ala Ile Thr 710	615 Thr Ala Met Ser Ser 695 Thr	Ser Pro Thr Gly 680 Ala Gln	Pro Gln Asp 665 His Ala	Gln Thr 650 Thr Ser Thr Pro Gly	Glu 635 Thr Lys Pro Thr Thr 715	Gln Thr Ser Phe 700 Thr	Pro Glu Val Glu 685 Ala	Ala Ser Thr 670 Ile Pro	Val Gln 655 Thr Val Ala Gln Thr	Ser 640 Thr Pro Pro Pro
Thr 625 Gln Thr Gly Gln Thr 705 Thr	Arg Arg Ser Asp 690 Gly Pro	His Gly Ser Ser 675 Ala Asp	Ser His Val 660 Phe Pro Gly Ser	Thr 645 Ser Thr Thr His His 725	Ser 630 Gln Pro Ala Ile Thr 710 Asp	615 Thr Ala Met Ser 695 Thr	Ser Pro Thr Gly 680 Ala Gln Thr	Pro Gln Asp 665 His Ala Ala Leu	Gln Thr 650 Thr Ser Thr Pro Gly 730	Glu 635 Thr Lys Pro Thr Thr 715 Pro	Gln Thr Ser Phe 700 Thr	Pro Glu Val Glu 685 Ala Ala Gly	Ala Ser Thr 670 Ile Pro Leu Gly	Val Gln 655 Thr Val Ala Gln Thr 735	Ser 640 Thr Pro Pro Pro Ala 720 Ser
Thr 625 Gln Thr Gly Gln Thr 705 Thr	Arg Arg Ser Asp 690 Gly Pro	His Gly Ser Ser 675 Ala Asp	Ser His Val 660 Phe Pro	Thr 645 Ser Thr Thr His His 725	Ser 630 Gln Pro Ala Ile Thr 710 Asp	615 Thr Ala Met Ser 695 Thr	Ser Pro Thr Gly 680 Ala Gln Thr	Pro Gln Asp 665 His Ala Ala Leu Leu	Gln Thr 650 Thr Ser Thr Pro Gly 730	Glu 635 Thr Lys Pro Thr Thr 715 Pro	Gln Thr Ser Phe 700 Thr	Pro Glu Val Glu 685 Ala Ala Gly	Ala Ser Thr 670 Ile Pro Leu Gly Val	Val Gln 655 Thr Val Ala Gln Thr 735	Ser 640 Thr Pro Pro Pro Ala 720 Ser
Thr 625 Gln Thr Gly Gln Thr 705 Thr	Arg Arg Ser Asp 690 Gly Pro Ser	His Gly Ser Ser 675 Ala Asp Ser Lys	Ser His Val 660 Phe Pro Gly Ser Thr 740	Thr 645 Ser Thr Thr His 725 Gly	Ser 630 Gln Pro Ala Ile Thr 710 Asp	615 Thr Ala Met Ser 695 Thr Ala Leu	Ser Pro Thr Gly 680 Ala Gln Thr	Pro Gln Asp 665 His Ala Ala Leu Leu 745	Gln Thr 650 Thr Ser Thr Pro Gly 730 Ala	Glu 635 Thr Lys Pro Thr Thr 715 Pro	Gln Thr Ser Phe 700 Thr Ser Ser	Pro Glu Val Glu 685 Ala Ala Gly Val	Ala Ser Thr 670 Ile Pro Leu Gly Val 750	Val Gln 655 Thr Val Ala Gln Thr 735 Ser	Ser 640 Thr Pro Pro Pro Ala 720 Ser
Thr 625 Gln Thr Gly Gln Thr 705 Thr	Arg Arg Ser Asp 690 Gly Pro Ser	His Gly Ser Ser 675 Ala Asp Ser Lys	Ser His Val 660 Phe Pro Gly Ser Thr	Thr 645 Ser Thr Thr His 725 Gly	Ser 630 Gln Pro Ala Ile Thr 710 Asp	615 Thr Ala Met Ser 695 Thr Ala Leu	Ser Pro Thr Gly 680 Ala Gln Thr	Pro Gln Asp 665 His Ala Ala Leu Leu 745	Gln Thr 650 Thr Ser Thr Pro Gly 730 Ala	Glu 635 Thr Lys Pro Thr Thr 715 Pro	Gln Thr Ser Phe 700 Thr Ser Ser	Pro Glu Val Glu 685 Ala Ala Gly Val	Ala Ser Thr 670 Ile Pro Leu Gly Val 750	Val Gln 655 Thr Val Ala Gln Thr 735 Ser	Ser 640 Thr Pro Pro Pro Ala 720 Ser
Thr 625 Gln Thr Gly Gln Thr 705 Thr	Arg Arg Ser Asp 690 Gly Pro Ser	His Gly Ser Ser 675 Ala Asp Ser Lys	Ser His Val 660 Phe Pro Gly Ser Thr 740	Thr 645 Ser Thr Thr His 725 Gly	Ser 630 Gln Pro Ala Ile Thr 710 Asp	615 Thr Ala Met Ser 695 Thr Ala Leu	Ser Pro Thr Gly 680 Ala Gln Thr	Pro Gln Asp 665 His Ala Ala Leu Leu 745	Gln Thr 650 Thr Ser Thr Pro Gly 730 Ala	Glu 635 Thr Lys Pro Thr Thr 715 Pro	Gln Thr Ser Phe 700 Thr Ser Ser	Pro Glu Val Glu 685 Ala Ala Gly Val	Ala Ser Thr 670 Ile Pro Leu Gly Val 750	Val Gln 655 Thr Val Ala Gln Thr 735 Ser	Ser 640 Thr Pro Pro Pro Ala 720 Ser
Thr 625 Gln Thr Gly Gln Thr 705 Thr Leu	Arg Arg Ser Asp 690 Gly Pro Ser Gly	His Gly Ser 675 Ala Asp Ser Lys Gly 755	Ser His Val 660 Phe Pro Gly Ser Thr 740 Pro	Thr 645 Ser Thr Thr His 725 Gly	Ser 630 Gln Pro Ala Ile Thr 710 Asp Ala Gly	615 Thr Ala Met Ser 695 Thr Ala Leu Gln	Ser Pro Thr Gly 680 Ala Gln Thr Thr	Pro Gln Asp 665 His Ala Ala Leu 745 Thr	Gln Thr 650 Thr Ser Thr Pro Gly 730 Ala Ser	Glu 635 Thr Lys Pro Thr 715 Pro Asn	Gln Thr Ser Phe 700 Thr Ser Ser	Pro Glu Val Glu 685 Ala Ala Gly Val Ala 765	Ala Ser Thr 670 Ile Pro Leu Gly Val 750 Ser	Val Gln 655 Thr Val Ala Gln Thr 735 Ser	Ser 640 Thr Pro Pro Ala 720 Ser Thr
Thr 625 Gln Thr Gly Gln Thr 705 Thr Leu	Arg Arg Ser Asp 690 Gly Pro Ser Gly Asp	His Gly Ser 675 Ala Asp Ser Lys Gly 755	Ser His Val 660 Phe Pro Gly Ser Thr 740	Thr 645 Ser Thr Thr His 725 Gly	Ser 630 Gln Pro Ala Ile Thr 710 Asp Ala Gly	615 Thr Ala Met Ser 695 Thr Ala Leu Gln Met	Ser Pro Thr Gly 680 Ala Gln Thr Thr	Pro Gln Asp 665 His Ala Ala Leu 745 Thr	Gln Thr 650 Thr Ser Thr Pro Gly 730 Ala Ser	Glu 635 Thr Lys Pro Thr 715 Pro Asn	Gln Thr Ser Phe 700 Thr Ser Ser Gln	Pro Glu Val Glu 685 Ala Ala Gly Val Ala 765	Ala Ser Thr 670 Ile Pro Leu Gly Val 750 Ser	Val Gln 655 Thr Val Ala Gln Thr 735 Ser	Ser 640 Thr Pro Pro Ala 720 Ser Thr
Thr 625 Gln Thr Gly Gln Thr 705 Thr Leu Pro	Arg Arg Ser Asp 690 Gly Pro Ser Gly Asp 770	His Gly Ser Ser 675 Ala Asp Ser Lys Gly 755 Thr	Ser His Val 660 Phe Pro Gly Ser Thr 740 Pro	Thr f45 Ser Thr Thr His Gly Glu Ala	Ser 630 Gln Pro Ala Ile Thr 710 Asp Ala Gly Ala	615 Thr Ala Met Ser 695 Thr Ala Leu Gln Met 775	Ser Pro Thr Gly 680 Ala Gln Thr Thr Trp 760 Thr	Pro Gln Asp 665 His Ala Ala Leu 745 Thr	Gln Thr 650 Thr Ser Thr Pro Gly 730 Ala Ser Thr	Glu 635 Thr Lys Pro Thr 715 Pro Asn Ala His	Gln Thr Ser Phe 700 Thr Ser Ser Gln 780	Pro Glu Val Glu 685 Ala Ala Gly Val Ala 765 Ala	Ala Ser Thr 670 Ile Pro Leu Gly Val 750 Ser Glu	Val Gln 655 Thr Val Ala Gln Thr 735 Ser Thr	Ser 640 Thr Pro Pro Pro Ala 720 Ser Thr Ser
Thr 625 Gln Thr Gly Gln Thr 705 Thr Leu Pro Pro Glu	Arg Arg Ser Asp 690 Gly Pro Ser Gly Asp 770	His Gly Ser Ser 675 Ala Asp Ser Lys Gly 755 Thr	Ser His Val 660 Phe Pro Gly Ser Thr 740 Pro	Thr f45 Ser Thr Thr His Gly Glu Ala	Ser 630 Gln Pro Ala Ile Thr 710 Asp Ala Gly Ala Thr	615 Thr Ala Met Ser 695 Thr Ala Leu Gln Met 775	Ser Pro Thr Gly 680 Ala Gln Thr Thr Trp 760 Thr	Pro Gln Asp 665 His Ala Ala Leu 745 Thr	Gln Thr 650 Thr Ser Thr Pro Gly 730 Ala Ser Thr	Glu 635 Thr Lys Pro Thr 715 Pro Asn Ala His	Gln Thr Ser Phe 700 Thr Ser Ser Gln 780	Pro Glu Val Glu 685 Ala Ala Gly Val Ala 765 Ala	Ala Ser Thr 670 Ile Pro Leu Gly Val 750 Ser Glu	Val Gln 655 Thr Val Ala Gln Thr 735 Ser Thr	Ser 640 Thr Pro Pro Ala 720 Ser Thr Ser
Thr 625 Gln Thr Gly Gln Thr 705 Thr Leu Pro Pro Glu 785	Arg Arg Ser Asp 690 Gly Pro Ser Gly Asp 770 Ala	His Gly Ser Ser 675 Ala Asp Ser Lys Gly 755 Thr Ser	Ser His Val 660 Phe Pro Gly Ser Thr 740 Pro Ala Gly	Thr f45 Ser Thr Thr His Gly Glu Ala Gln	Ser 630 Gln Pro Ala Ile Thr 710 Asp Ala Gly Ala Thr	615 Thr Ala Met Ser 695 Thr Ala Leu Gln Met 775 Gln	Ser Pro Thr Gly 680 Ala Gln Thr Thr Trp 760 Thr	Pro Gln Asp 665 His Ala Ala Leu Leu 745 Thr His	Gln Thr 650 Thr Ser Thr Pro Gly 730 Ala Ser Thr Glu	Glu 635 Thr Lys Pro Thr Thr 715 Pro Asn Ala His	Gln Thr Ser Phe 700 Thr Ser Ser Gln 780 Ala	Pro Glu Val Glu 685 Ala Ala Gly Val Ala 765 Ala Ser	Ala Ser Thr 670 Ile Pro Leu Gly Val 750 Ser Glu Ser	Val Gln 655 Thr Val Ala Gln Thr 735 Ser Thr Ser Gly	Ser 640 Thr Pro Pro Pro Ala 720 Ser Thr Ser Thr
Thr 625 Gln Thr Gly Gln Thr 705 Thr Leu Pro Pro Glu 785	Arg Arg Ser Asp 690 Gly Pro Ser Gly Asp 770 Ala	His Gly Ser Ser 675 Ala Asp Ser Lys Gly 755 Thr Ser	Ser His Val 660 Phe Pro Gly Ser Thr 740 Pro	Thr f45 Ser Thr Thr His F25 Gly Glu Ala Gln Ala	Ser 630 Gln Pro Ala Ile Thr 710 Asp Ala Gly Ala Thr	615 Thr Ala Met Ser 695 Thr Ala Leu Gln Met 775 Gln	Ser Pro Thr Gly 680 Ala Gln Thr Thr Trp 760 Thr	Pro Gln Asp 665 His Ala Ala Leu Leu 745 Thr His	Gln Thr 650 Thr Ser Thr Pro Gly 730 Ala Ser Thr Glu Pro	Glu 635 Thr Lys Pro Thr Thr 715 Pro Asn Ala His	Gln Thr Ser Phe 700 Thr Ser Ser Gln 780 Ala	Pro Glu Val Glu 685 Ala Ala Gly Val Ala 765 Ala Ser	Ala Ser Thr 670 Ile Pro Leu Gly Val 750 Ser Glu Ser	Val Gln 655 Thr Val Ala Gln Thr 735 Ser Thr Ser Gly Ala	Ser 640 Thr Pro Pro Pro Ala 720 Ser Thr Ser Thr
Thr 625 Gln Thr Gly Gln Thr 705 Thr Leu Pro Pro Glu 785 Arg	Arg Arg Ser Asp 690 Gly Pro Ser Gly Asp 770 Ala Thr	His Gly Ser Ser 675 Ala Asp Ser Lys Gly 755 Thr Ser	Ser His Val 660 Phe Pro Gly Ser Thr 740 Pro Ala Gly	Thr 645 Ser Thr Thr His 725 Gly Glu Ala Gln Ala 805	Ser 630 Gln Pro Ala Ile Thr 710 Asp Ala Gly Ala Thr 790 Gly	615 Thr Ala Met Ser 695 Thr Ala Leu Gln Met 775 Gln Thr	Ser Pro Thr Gly 680 Ala Gln Thr Thr Trp 760 Thr Thr Ala	Pro Gln Asp 665 His Ala Ala Leu 745 Thr His Ser	Gln Thr 650 Thr Ser Thr Pro Gly 730 Ala Ser Thr Glu Pro 810	Glu 635 Thr Lys Pro Thr Thr 715 Pro Asn Ala His Pro 795 Ser	Gln Thr Ser Phe 700 Thr Ser Ser Gln 780 Ala Ser	Pro Glu Val Glu 685 Ala Ala Gly Val Ala 765 Ala Ser	Ala Ser Thr 670 Ile Pro Leu Gly Val 750 Ser Glu Ser Gly	Val Gln 655 Thr Val Ala Gln Thr 735 Ser Thr Ser Gly Ala 815	Ser 640 Thr Pro Pro Ala 720 Ser Thr Ser 800 Ser

			820					825					830		
Thr	Δνα	Dhe		Ser	Δsn	Pro	Sar) co	Sar	Uic	Thr		Gln	Ser
****	nr 9	835	JC1	501			840	ALG	vəħ	361	1113	845		·	•
Thr	Thr		Leu	Leu	Ser	Ala		Δla	Ser	Hic	Glv		Tle	Pro	Val
	850	014	204			855	001	ALG.	361	1113	860	AIU			
Ser		Glv	Met	Ala	Ser		Tla	Va 1	Dro	Gly		Dhe	Hie	Pro	Thr
865	****	u z y			870			vui	110	875	****				880
_	Ser	Glu	Δla	Ser		Δla	Glv	Δτα	Pro		Glv	Gln	Ser	Ser	
Deu		014	AIG	885	****	7.14	Oly	my	890	1111	OLY	U 1		895	
Thr	Ser	Dro	Sar	Ala	Sar	Pro	Gl n	Glu		λla	λla	Tla	Sar		Met
1111	261	PIO	900	AIA	361	FIO	GIII	905	1111	ALA	AIA	TTE	910	Arg	Mec
Δla	Gln	Thr		Arg	Thr	λνα	Thr		Ara	Gly	Sar	Acn		Tla	Sar
ALU	0111	915	0111	~=9	****	AL 9	920	JCI	ALY	CLY	JCI	925	****		561
T.011	Δla		Gln	Ala	Thr	λen		Dhe	Sar	Thr	V=1		Pro	Thr	Pro
Deu	930	361	GIII	AIG	1111	935	1111	FIIC	Jer	1111	940	110	110		110
Pro		Tla	Thr	Ser	Car		Lau	Thr	Cor	Dro		Thr	Gln	Thr	Hic
945	561			001	950	O ₁	DCu	1111	JCI	955	01	****	0111		960
	T.e.11	Ser	Pro	Ser		Ser	Glv	Lve	Thr		Thr	Thr	Δla	T.e11	
1111	Deu	Jer	110	965	O _T y	361	Gry	шyэ	970	rne	1111	****	ALU	975	110
Ser	Aen	בומ	Thr	Pro	T.411	Pro	Val	Thr		Δla	Sar	Sar	בומ	-	Thr
JCI	A311	AIU	980	110	шец	710	Val	985	1 7 1	ALG	Jer	JCI	990	501	
Glv	Hie	Thr		Pro	T.em	Hie	Va 1		Aen	בומ	Ser	Ser		Ser	Thr
Gry		995	1111	110	ne a	1113	1000		тэр	AIG	Jer	1009		JCI	1111
Glv	His		Thr	Pro	T.e.ii	Pro			Ser	Pro	Ser			Ser	Thr
4. <i>y</i>	1010			110	200	1015		1111	JÇI	110	1020			501	
Glv			Thr	Pro	Leu			Thr	Ser	Pro			Ala	Ser	Ser
1025					1030					1035					1040
Glv	His	Ala	Thr	Ser			Val	Thr	Asp			Ser	Leu	Ser	
Gly	His	Ala	Thr	Ser 1049	Leu		Val	Thr	Asp	Ala		Ser	Leu	Ser 1055	Thr
				1045	Leu	Pro			1050	Ala)	Ser			1055	Thr
				1045 Ser	Leu	Pro			1050 Asp	Ala)	Ser			1059 Ser	Thr
Gly	His	Ala	Thr	1049 Ser	Leu Leu	Pro His	Val	Thr	1050 Asp	Ala) Ala	Ser Ser	Ser	Val	1059 Ser	Thr Thr
Gly	His	Ala	Thr 1060 Thr	1045 Ser	Leu Leu	Pro His	Val	Thr 1065 Thr	1050 Asp	Ala) Ala	Ser Ser	Ser	Val 1070 Ala	1059 Ser	Thr 5 Thr
Gly Gly	His His	Ala Ala 1075	Thr 1060 Thr	1049 Ser) Leu	Leu Leu Leu	Pro His His	Val Val 1080	Thr 1065 Thr	1050 Asp S	Ala) Ala Ala	Ser Ser Ser	Ser Ser	Val 1070 Ala	1055 Ser) Ser	Thr 5 Thr Thr
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Gly Gly Gly	His His His	Ala Ala 1075 Thr	Thr 1060 Thr Thr	1049 Ser) Leu	Leu Leu Leu Leu	Pro His His Pro	Val Val 1080 Val	Thr 1065 Thr) Thr	1050 Asp Asp Asp	Ala Ala Ala Ala	Ser Ser Ser 1100	Ser Ser 1089 Ser	Val 1070 Ala Val	1055 Ser Ser Ser	Thr Thr Thr
Gly Gly Gly	His His His 1090 Asp	Ala Ala 1075 Thr	Thr 1060 Thr Thr	1045 Ser) Leu Ser	Leu Leu Leu Leu	Pro His His Pro 1099 Pro	Val Val 1080 Val	Thr 1065 Thr) Thr	1050 Asp Asp Asp	Ala Ala Ala Ala	Ser Ser Ser 1100	Ser Ser 1089 Ser	Val 1070 Ala Val	1055 Ser Ser Ser	Thr Thr Thr
Gly Gly Gly 1105	His His 1090 Asp	Ala 1075 Thr)	Thr 1060 Thr Thr	1045 Ser) Leu Ser	Leu Leu Leu Leu Leu	Pro His His Pro 1099	Val Val 1080 Val Val	Thr 1065 Thr Thr	Asp Asp Asp Asp	Ala Ala Ala Thr	Ser Ser Ser 1100 Ser	Ser Ser 1089 Ser)	Val 1070 Ala Val Ala	Ser Ser Ser Ser	Thr Thr Thr Thr 1120
Gly Gly Gly 1105	His His 1090 Asp	Ala 1075 Thr)	Thr 1060 Thr Thr	Ser Leu Ser	Leu Leu Leu Leu Leu Leu	Pro His His Pro 1099	Val Val 1080 Val Val	Thr 1065 Thr Thr	Asp Asp Asp Asp	Ala Ala Ala Thr 1115	Ser Ser Ser 1100 Ser	Ser Ser 1089 Ser)	Val 1070 Ala Val Ala	Ser Ser Ser Ser	Thr Thr Thr Thr Thr Thr
Gly Gly Gly 1105	His His 1090 Asp	Ala 1075 Thr Thr	Thr 1060 Thr Thr Thr	1045 Ser Leu Ser Pro	Leu Leu Leu Leu Leu Leu Leu	Pro His His Pro 1099 Pro His	Val 1080 Val Val Val	Thr 1065 Thr Thr Thr	Asp Asp Asp Asp Asp	Ala Ala Ala Thr 1115 Ala	Ser Ser Ser 1100 Ser Ser	Ser 1089 Ser Ser Ser	Val 1070 Ala Val Ala	Ser Ser Ser Ser Ser	Thr Thr Thr Thr Thr Thr
Gly Gly Gly 1105 Gly	His His 1090 Asp Asp	Ala 1075 Thr Thr Thr	Thr 1060 Thr Thr Thr Thr	1045 Ser Leu Ser Pro	Leu Leu Leu Leu Leu Leu Leu Leu	Pro His His Pro 1099 Pro His	Val Val Val Val Val Val	Thr 1065 Thr Thr Thr Thr	Asp Asp Asp Asp Asp Asp Ser	Ala Ala Ala Thr 1115 Ala	Ser Ser Ser 1100 Ser Ser Ser	Ser 1089 Ser Ser Ser Ser	Val 1070 Ala Val Ala Val	Ser Ser Ser Ser Ser Ser	Thr Thr Thr Thr Thr Thr
Gly Gly Gly 1105 Gly	His His 1090 Asp Asp	Ala 1075 Thr Thr Thr	Thr 1060 Thr Thr Thr Thr	lous Ser Leu Ser Pro Pro 1125 Pro	Leu Leu Leu Leu 1110 Leu Leu	Pro His His Pro 1099 Pro His	Val Val 1080 Val Val Val	Thr 1065 Thr Thr Thr Thr	Asp Asp Asp Asp Asp Ser	Ala Ala Ala Thr ills Ala	Ser Ser Ser 1100 Ser Ser Ser	Ser 1089 Ser Ser Ser	Val 1070 Ala Val Val Val	Ser Ser Ser Ser Ser Ser	Thr Thr Thr Thr Thr Thr Thr
Gly Gly Gly 1105 Gly Gly	His His 1090 Asp Asp	Ala 1075 Thr Thr Thr	Thr 1060 Thr Thr Thr Thr Thr Thr	lous Ser Leu Ser Pro Pro 1125 Pro	Leu Leu Leu Leu 1110 Leu Leu	Pro His His Pro 1099 Pro His His	Val Val 1080 Val Val Val	Thr 1065 Thr Thr Thr Thr Thr Thr	Asp Asp Asp Asp Asp Ser	Ala Ala Ala Thr ills Ala	Ser Ser Ser 1100 Ser Ser Ser	Ser 1089 Ser Ser Ser	Val 1070 Ala Val Ala Val Val 1150 Ala	Ser Ser Ser Ser Ser Ser	Thr Thr Thr Thr Thr Thr Thr
Gly Gly Gly 1105 Gly Gly	His His 1090 Asp Asp His	Ala 1075 Thr Thr Thr Ala Thr	Thr 1060 Thr Thr Thr Thr Thr Thr	1045 Ser Leu Ser Pro 1125 Pro	Leu	Pro His His Pro 1099 Pro His His	Val Val Val Val Val Val	Thr 1065 Thr Thr Thr Thr Thr Thr	Asp Asp Asp Asp Ser Ser	Ala Ala Ala Thr 1115 Ala Leu Pro	Ser Ser Ser 1100 Ser Ser Ser Ser	Ser 1089 Ser Ser Ser Ser 1169	Val 1070 Ala Val Ala Val Val 1150 Ala	Ser Ser Ser Ser Ser Ser 1135 Ser	Thr Thr Thr Thr 1120 Thr Thr
Gly Gly Gly 1105 Gly Gly Gly Gly	His His 1090 Asp Asp His	Ala 1075 Thr Thr Ala Thr 1155 Ala	Thr 1060 Thr Thr Thr Thr Thr Thr	1045 Ser Leu Ser Pro 1125 Pro	Leu	Pro His His Pro 1099 Pro His His	Val Val Val Val Val Val Val	Thr 1065 Thr Thr Thr Thr Thr Thr	Asp Asp Asp Asp Ser Ser	Ala Ala Ala Thr 1115 Ala Leu Pro	Ser Ser Ser 1100 Ser Ser Ser Ser	Ser Ser Ser Ser Ser Ser Ser	Val 1070 Ala Val Ala Val Val 1150 Ala	Ser Ser Ser Ser Ser Ser 1135 Ser	Thr Thr Thr Thr 1120 Thr Thr
Gly Gly Gly 1105 Gly Gly Gly Gly	His His 1090 Asp Asp His Asp	Ala 1075 Thr Thr Ala Thr 1155 Ala	Thr 1060 Thr Thr Thr Thr Thr Thr	1049 Ser Leu Ser Pro Pro 1125 Pro Ser	Leu	Pro His His Pro 1099 Pro His His Pro	Val Val Val Val Val Val Val Val	Thr 1065 Thr Thr Thr Thr Thr 1145 Thr	Asp Asp Asp Asp Ser Ser Asp	Ala Ala Ala Thr 1115 Ala Leu Pro	Ser Ser Ser 1100 Ser Ser Ser Ser Ser	Ser Ser Ser Ser Ser Ser	Val 1070 Ala Val Val Val 1150 Ala Val	1055 Ser Ser Ser Ser Ser Ser Ser Ser Ser	Thr Thr Thr 1120 Thr Ser Thr
Gly Gly Gly Gly Gly Gly Gly Gly Gly H185	His His 1090 Asp Asp His Asp His	Ala 1075 Thr Thr Ala Thr 1155 Ala	Thr 1060 Thr Thr Thr Thr Thr 1140 Thr	1049 Ser Leu Ser Pro Pro 1125 Pro Ser Ser	Leu	Pro His Pro His Pro His Pro Pro	Val Val Val Val Val Val Val Val Val	Thr 1065 Thr Thr Thr Thr Thr 1145 Thr	Asp Asp Asp Asp Ser Ser Asp	Ala Ala Ala Thr 1115 Ala Leu Pro Ala Pro 1195	Ser Ser Ser Ser Ser Ser Ser Ser Ser	Ser Ser Ser Ser Ser Ser Ser Ser	Val 1070 Ala Val Val 1150 Ala Val Ala	1055 Ser	Thr Thr Thr 1120 Thr Ser Thr
Gly Gly Gly Gly Gly Gly Gly Gly Gly	His His 1090 Asp Asp His Asp His	Ala 1075 Thr Thr Ala Thr 1155 Ala	Thr 1060 Thr Thr Thr Thr Thr 1140 Thr	1049 Ser Leu Ser Pro Pro 1125 Pro Ser Ser	Leu	Pro His Pro His Pro His Pro Pro	Val Val Val Val Val Val Val Val Val	Thr 1065 Thr Thr Thr Thr Thr 1145 Thr	Asp Asp Asp Asp Ser Ser Asp	Ala Ala Ala Thr 1115 Ala Leu Pro Ala Pro 1195	Ser Ser Ser Ser Ser Ser Ser Ser Ser	Ser Ser Ser Ser Ser Ser Ser Ser	Val 1070 Ala Val Val 1150 Ala Val Ala	1055 Ser	Thr Thr Thr 1120 Thr Ser Thr
Gly Gly Gly Gly Gly Gly Gly Gly Gly H185	His His 1090 Asp Asp His Asp His	Ala 1075 Thr Thr Ala Thr 1155 Ala	Thr 1060 Thr Thr Thr Thr Thr 1140 Thr	1049 Ser Leu Ser Pro Pro 1125 Pro Ser Ser	Leu	Pro His Pro His Pro His Pro Pro	Val Val Val Val Val Val Val Val Val	Thr 1065 Thr Thr Thr Thr Thr 1145 Thr	Asp Asp Asp Asp Ser Ser Asp	Ala Ala Ala Thr 1115 Ala Pro Ala Pro 1195 Leu	Ser Ser Ser Ser Ser Ser Ser Ser Ser	Ser Ser Ser Ser Ser Ser Ser Ser	Val 1070 Ala Val Val 1150 Ala Val Ala	1055 Ser	Thr Thr Thr 1120 Thr Ser Thr Ser Thr
Gly Gly Gly Gly Gly Gly Gly Gly Gly H185	His His 1090 Asp Asp His Asp His Asp	Ala 1075 Thr Thr Ala Thr 1155 Ala Ala	Thr 1060 Thr Thr Thr Thr Thr Thr Thr Thr	lo49 Ser Leu Ser Pro lo25 Pro Ser Ser Ser	Leu	Pro His Pro 1099 Pro His Pro Pro 1175 Pro	Val	Thr 1065 Thr Thr Thr Thr Thr Thr Thr Thr Thr	Asp Asp Asp Asp Ila Ser Asp Ile Ser 1210	Ala Ala Ala Thr 1115 Ala Pro Ala Pro Leu	Ser	Ser 1085 Ser Ser Ser Ser Ser Ser Ser Ser	Val 1070 Ala Val Val 1150 Ala Val Ala	Ser	Thr Thr Thr 1120 Thr Ser Thr Ser Thr
Gly	His His 1090 Asp Asp His Asp His Asp	Ala 1075 Thr Thr Ala Thr 1155 Ala Ala	Thr 1060 Thr Thr Thr Thr Thr Thr Thr Thr	1049 Ser Leu Ser Pro 1125 Pro Pro Ser Ser 1205 Pro	Leu	Pro His Pro 1099 Pro His Pro Pro 1175 Pro	Val	Thr 1065 Thr Thr Thr Thr Thr Thr Thr Thr Thr	Asp Asp Asp Asp Asp 1130 Ser Ser Asp Ile Ser 1210 Ser	Ala Ala Ala Thr 1115 Ala Pro Ala Pro Leu	Ser	Ser 1085 Ser Ser Ser Ser Ser Ser Ser Ser	Val 1070 Ala Val Val 1150 Ala Val Ala	Ser	Thr Thr Thr 1120 Thr Ser Thr Ser Thr
Gly	His His His 1090 Asp Asp His Asp His Asp	Ala 1075 Thr Thr Ala Thr 1155 Ala Ala Ala	Thr 1060 Thr	lo49 Ser Leu Ser Pro Pro 1125 Pro Ser Ser 1205 Pro	Leu	Pro His Pro 1099 Pro His Pro Pro Pro Pro	Val	Thr 1065 Thr	Asp Asp Asp Asp Ser Ser Asp Ile Ser 1210	Ala Ala Ala Ala Thr 1115 Ala Pro Ala Pro Leu Leu Leu	Ser	Ser	Val 1070 Ala Val Val 1150 Ala Val Leu Ala	Ser	Thr Thr Thr Thr 1120 Thr Ser Thr Ser Thr
Gly	His His His 1090 Asp Asp His Asp His Asp	Ala 1075 Thr Thr Ala Thr 1155 Ala Ala Ala	Thr 1060 Thr Thr Thr Thr 1140 Thr Thr Thr Thr Thr Thr	lo49 Ser Leu Ser Pro Pro 1125 Pro Ser Ser 1205 Pro	Leu	Pro His Pro 1099 Pro His Pro Pro Pro Pro	Val	Thr 1065 Thr	Asp Asp Asp Asp Ser Ser Asp Ile Ser 1210	Ala Ala Ala Ala Thr 1115 Ala Pro Ala Pro Leu Leu Leu	Ser	Ser	Val 1070 Ala Val Val 1150 Ala Val Ala Leu Ala 1230 Val	Ser	Thr Thr Thr Thr 1120 Thr Ser Thr Ser Thr

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1260
    1250
                       1255
Gly His Ala Thr Pro Leu His Val Thr Asp Ala Ser Ser Val Ser Thr
                  1270
                                     1275
Gly Asp Thr Thr Pro Leu Pro Val Thr Ser Pro Ser Ser Ala Ser Thr
                                  1290
               1285
Gly Asp Thr. Thr Pro Leu Pro Val Thr Asp Thr Ser Ser Val Ser Thr
                                                 1310
                              1305
           1300
Gly Asp Thr Thr Pro Leu Leu Val Thr Asp Thr Ser Ser Val Ser Thr
                   1320
                                             1325
       1315
Ser His Ala Thr Ser Leu Pro Val Thr Asp Thr Ser Ser Val Ser Thr
                      1335
                                      1340
   1330
Ser His Ala Thr Ser Leu Pro Val Thr Asp Pro Ser Ser Ala Ser Thr
                  1350
                                      1355
                                                         1360
Gly Asp Thr Thr Pro Leu Pro Val Thr Asp Thr Ser Ser Val Ser Thr
               1365
                                 1370
Gly His Ala Thr Ser Leu Pro Val Thr Asp Thr Ser Ser Ala Ser Thr
           1380
                              1385
Gly Asp Thr Thr Ser Leu Pro Val Thr Asp Thr Ser Ser Ala Ser Thr
                          1400
       1395
Gly His Ala Thr Pro Leu Pro Val Thr Asp Thr Ser Ser Ala Ser Thr
                       1415
                                          1420
Gly His Ala Thr Pro Leu Leu Val Thr Asp Thr Ser Ser Ala Ser Thr
                                      1435
                   1430
Gly His Thr Thr Pro Leu His Val Thr Ser Pro Ser Ser Ala Ser Thr
               1445
                                  1450
Gly His Ala Thr Pro Leu Pro Val Thr Ser Pro Ser Ser Ala Ser Thr
                                                  1470
           1460
                              1465
Ser His Ala Thr Ser Leu Pro Val Thr Asp Thr Ser Ser Ala Ser Thr
                                              1485
       1475
                          1480 -
Gly His Ala Thr Pro Leu Leu Val Thr Asp Thr Ser Ser Ala Ser Thr
                      1495
                                         1500
Gly His Ala Thr Pro Leu Leu Val Thr Asp Thr Ser Ser Ala Ser Thr
                  1510
                                     1515
Gly His Ala Thr Pro Leu Pro Val Thr Asp Thr Ser
                                  1530
              1525
<210> 1419
<211> 309
<212> DNA
<213> Homo sapiens
<400> 1419
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gaggttccct tgatggaaat caagtattgt actggtaaat ttattcagga cagtggtctg
gattatatca teateegttt gtgtggttte atgeagggte ttattgggea atatgetgtt
cctatactag aagagaagtc cgtctgggga actgatgctc caactcggat tgcttacatg
gatacccagg acgtagctcg actaacgttt atagctatgc ggaatgagaa ggccaacaag
300
aaactcatg
309
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<210> 1420
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   <212> PRT
   <213> Homo sapiens
  <400> 1420
  Lys Ala Met Gly Ile Gln Lys Tyr Val Phe Tyr Ser Ile His Asn Cys
                                      10
  Asp Lys Gln Pro Glu Val Pro Leu Met Glu Ile Lys Tyr Cys Thr Gly
                                  25
  Lys Phe Ile Gln Asp Ser Gly Leu Asp Tyr Ile Ile Ile Arg Leu Cys
                              40
  Gly Phe Met Gln Gly Leu Ile Gly Gln Tyr Ala Val Pro Ile Leu Glu
                          55
  Glu Lys Ser Val Trp Gly Thr Asp Ala Pro Thr Arg Ile Ala Tyr Met .
                      70
                                          75
  Asp Thr Gln Asp Val Ala Arg Leu Thr Phe Ile Ala Met Arg Asn Glu
                  85
 Lys Ala Asn Lys Lys Leu Met
             100
 <210> 1421
 <211> 385
 <212> DNA
 <213> Homo sapiens
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 ggccagggag ctgggctggg cagccaggag tagagaaaca acgctcccag aggagggcg
 120
 gatgttagag caaagccgag cccagctgct ggcgaatgca tctgtgatgc ccatgagcag
 ccaggattte ageteegete taettettga etgetgeaga aeteageace ageteeagtg
ccctcagagc cctgattttt cacaaaccga ctcctccaag cctcccctgt gggcgggata
cacaagccag agtcgccttg tcacatctct tctctccca ccaggtcatg ggcaaacctt
cctgacatac tttacgacat tacag
385
<210> 1422
<211> 125
<212> PRT
<213> Homo sapiens
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Met Gly Glu Arg Ser Trp Gly Glu Glu Met Met Gln Arg Ser Arg
                 5
                                    10
Gln Ala Arg Glu Leu Gly Trp Ala Ala Arg Ser Arg Glu Thr Thr Leu
                                25
Pro Glu Glu Gly Arg Met Leu Glu Gln Ser Arg Ala Gln Leu Leu Ala
```

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40
Asn Ala Ser Val Met Pro Met Ser Ser Gln Asp Phe Ser Ser Ala Leu
                        55
Leu Leu Asp Cys Cys Arg Thr Gln His Gln Leu Gln Cys Pro Gln Ser
                                        75
                    70
Pro Asp Phe Ser Gln Thr Asp Ser Ser Lys Pro Pro Leu Trp Ala Gly
                                    90
                85
Tyr Thr Ser Gln Ser Arg Leu Val Thr Ser Leu Leu Ser Pro Pro Gly
                                105
His Gly Gln Thr Phe Leu Thr Tyr Phe Thr Thr Leu Gln
                            120
<210> 1423
<211> 336
<212> DNA
<213> Homo sapiens
<400> 1423
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ctctattttg tggaccatgt cggtgaccgg atctttgttt gtaattccaa cggttctgta
tgtgtcaccc tgattgatct ggagcttcac aatcctaaag caatagcagt agatccaata
gcaggaaaac ttttctttac tgactacggg aatgtcgcca aagtggagag atgtgacatg
gatgggatga accgaacaag gataattgat tcaaagacag agcagccagc tgcactggca
ctagacctag tcaacaaatt ggtttactgg gtagat
336
<210> 1424
<211> 112
<212> PRT
<213> Homo sapiens
<400> 1424
Xaa Ile Leu Gln Ser Phe His Asn Val Gln Gln Met Ala Ile Asp Trp
                                     10
Leu Thr Arg Asn Leu Tyr Phe Val Asp His Val Gly Asp Arg Ile Phe
                                 25
Val Cys Asn Ser Asn Gly Ser Val Cys Val Thr Leu Ile Asp Leu Glu
                             40
Leu His Asn Pro Lys Ala Ile Ala Val Asp Pro Ile Ala Gly Lys Leu
                                             60
Phe Phe Thr Asp Tyr Gly Asn Val Ala Lys Val Glu Arg Cys Asp Met
                    70
Asp Gly Met Asn Arg Thr Arg Ile Ile Asp Ser Lys Thr Glu Gln Pro
                                     90
Ala Ala Leu Ala Leu Asp Leu Val Asn Lys Leu Val Tyr Trp Val Asp
<210> 1425
<211> 672
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<212> DNA
  <213> Homo sapiens
  <400> 1425
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 geceggeatg tegaagacet ggeettggeg etacaggtea ttgeeggtga agatggggte
  120
 gatgccgggg tgattccgat gccgctgcgc cgtatgcaaa ctcaaacgct gaaggggttg
 cgagtcgcct ggtacagcga tggtggcatt gagcccgttg acgcgctcac gcacaccaca
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 teggegttga geaatgeeeg tgacattace gaacgetatt gggeaatgag teaaagetee
 ggcgcgcagt cgatccagct gttttcagat tgggatcagt tccgtacagc catgctgggg
 ttcatggccg actacgacat tatcctgtgc cctgtcgatg ccgcgccggc gacccaactg
 ggagagacgc ggccagggct gttcagttcc ccccttccta atggcttggc gggttggcct
 540
 tgtgtggtgg tccgggccgg aacggatagc gcgggtttgc cggttggcgt gcagattgtc
 gegegaeett ggeaegagee tgtegegttg geggeageag eggecattga gegegegetg
 ccgttcacgc gt
 672
 <210> 1426
 <211> 224
 <212> PRT
 <213> Homo sapiens
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Thr Gly Val Phe Asp His Leu Gly Gly Leu Ser Asp Tyr Arg Ser Gln
 1
Ile Gly Pro Met Ala Arg His Val Glu Asp Leu Ala Leu Gln
Val Ile Ala Gly Glu Asp Gly Val Asp Ala Gly Val Ile Pro Met Pro
                             40
                                                45
Leu Arg Arg Met Gln Thr Gln Thr Leu Lys Gly Leu Arg Val Ala Trp
                                            60
Tyr Ser Asp Gly Gly Ile Glu Pro Val Asp Ala Leu Thr His Thr Thr
                    70
                                        75
Leu Gln Ala Val Ala Asp Leu Leu Asp Ala Glu Gly Ala Leu Ile Arg
                85
                                    90
Pro Ala Phe Pro Ser Ala Leu Ser Asn Ala Arg Asp Ile Thr Glu Arg
                                105
Tyr Trp Ala Met Ser Gln Ser Ser Gly Ala Gln Ser Ile Gln Leu Phe
                            120
Ser Asp Trp Asp Gln Phe Arg Thr Ala Met Leu Gly Phe Met Ala Asp
   130
                                            140
Tyr Asp Ile Ile Leu Cys Pro Val Asp Ala Ala Pro Ala Thr Gln Leu
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155
                    150
145
Gly Glu Thr Arg Pro Gly Leu Phe Ser Ser Pro Leu Pro Asn Gly Leu
                                  170
Ala Gly Trp Pro Cys Val Val Val Arg Ala Gly Thr Asp Ser Ala Gly
                                185
            180
Leu Pro Val Gly Val Gln Ile Val Ala Arg Pro Trp His Glu Pro Val
                            200
Ala Leu Ala Ala Ala Ala Ile Glu Arg Ala Leu Pro Phe Thr Arg
<210> 1427
<211> 270
<212> DNA
<213> Homo sapiens
<400> 1427
atggettget atetgaagea ggtggetgee accgtetgea taaatgggee cagegeagte
tttgatgttc cactaagata cggggatctg gtggtgacac ccatgcgact ggcttcggaa
ttgatgcaag tccatccctc aggggctgta cgcttccgtc actgttcagt tccccagaat
aaactcaact cacaaaagat acttccggtg gaaaaggccc aagggaagat cctcttcatt
gcaggagaga atgacgaaag cttggctagc
270
<210> 1428
<211> 90
<212> PRT
 <213> Homo sapiens
 <400> 1428
Met Ala Cys Tyr Leu Lys Gln Val Ala Ala Thr Val Cys Ile Asn Gly
                 5
Pro Ser Ala Val Phe Asp Val Pro Leu Arg Tyr Gly Asp Leu Val Val
            20
Thr Pro Met Arg Leu Ala Ser Glu Leu Met Gln Val His Pro Ser Gly
                             40
Ala Val Arg Phe Arg His Cys Ser Val Pro Gln Asn Lys Leu Asn Ser
                         55
 Glm Lys Ile Leu Pro Val Glu Lys Ala Glm Gly Lys Ile Leu Phe Ile
                                         75
                    70
 Ala Gly Glu Asn Asp Glu Ser Leu Ala Ser
                 85
 <210> 1429
 <211> 384
 <212> DNA
 <213> Homo sapiens
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 nectagggga ttategacat aaacgegact gegtaaggtt ggtgactcat ceeccagega
 60
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catgaggcaa acgccatgac atccgagaat gcaccgccgc gaggcaagat catcatgatg
  geggtgateg ceggegeggt ggtcaccaac atttactgca cecageeggt getgeegttg
 ategectegg acatgggegt egeagtgteg aeggteaace tggtggeagg egeggeettg
 240
 ctggggtttg ccaccgggtt ggcgttttta ttgcccatgg gcgaccgctt tgaccggcgc
 aagctggtac tcgggcagat tgcgctggcg ttctgctttg ccttggcggc ggcttttgcg
 ccgaggatct gggcgttgat cggc
 384
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 <211> 103
 <212> PRT
 <213> Homo sapiens
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 Met Thr Ser Glu Asn Ala Pro Pro Arg Gly Lys Ile Ile Met Met Ala
                                     10
 Val Ile Ala Gly Ala Val Val Thr Asn Ile Tyr Cys Thr Gln Pro Val
 Leu Pro Leu Ile Ala Ser Asp Met Gly Val Ala Val Ser Thr Val Asn
 Leu Val Ala Gly Ala Ala Leu Leu Gly Phe Ala Thr Gly Leu Ala Phe
                                             60
 Leu Leu Pro Met Gly Asp Arg Phe Asp Arg Arg Lys Leu Val Leu Gly
                                         75
 Gln Ile Ala Leu Ala Phe Cys Phe Ala Leu Ala Ala Ala Phe Ala Pro
                 85
Arg Ile Trp Ala Leu Ile Gly
            100
<210> 1431
<211> 414
<212> DNA
<213> Homo sapiens
<400> 1431
aagetteagg geaggtgtee eetgaagtea ageetgatte tgeateatet tgtatageae
aaactggcga cacctgtgac tttgcctttc ccagggtccc tgctctccgc tccaggtagg
ctcagcctga gggaggtgct ggcaggagcc tcggaggcag gaggggctgg cgtgcttcac
teetteaget tgtettggga gagetgtggg etgeateeee etggeteete gteecacagg
cageceeget gtgtgtetgg tettgeaggt tggetgeage ttetgggeee tgetteeage
ccctcttccc atgatectcc agecttggaa ggtgtaatag tttcccatgt tgctgatett
tagtttgcct ccctctctt ggctgttctt tctgctgttc catcctctgt gcac
414
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<210> 1432
<211> 106
<212> PRT
<213> Homo sapiens
<400> 1432
Met Gly Asn Tyr Tyr Thr Phe Gln Gly Trp Arg Ile Met Gly Arg Gly.
                 5
                                    10
1
Ala Gly Ser Arg Ala Gln Lys Leu Gln Pro Thr Cys Lys Thr Arg His
                                25
Thr Ala Gly Leu Pro Val Gly Arg Gly Ala Arg Gly Met Gln Pro Thr
                            40
Ala Leu Pro Arg Gln Ala Glu Gly Val Lys His Ala Ser Pro Ser Cys
                        55
Leu Arg Gly Ser Cys Gln His Leu Pro Gln Ala Glu Pro Thr Trp Ser
                                        75
                    70
Gly Glu Gln Gly Pro Trp Glu Arg Gln Ser His Arg Cys Arg Gln Phe
                                    90
Val Leu Tyr Lys Met Met Gln Asn Gln Ala
            100
<210> 1433
<211> 294
<212> DNA
<213> Homo sapiens
<400> 1433
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gacgcggccg tcagcaatgc tgtggcttgc aagttccgct gtggtggaca aacgtgcatt
120
tcggccaacc gaatctacgt gcacgaacaa gtgcacgacg agtttgtctc taagtttggc
gagagagtca agaagetteg egtgggetae ggtetggaeg aaaacateaa eattggaeeg
ctagtgaatg aggctagtca ggacaaagca gagtcacatg tccgtgcgat gcaa
294
<210> 1434
<211> 98
<212> PRT
<213> Homo sapiens
<400> 1434
Lys Phe Ser Met Glu Leu Gly Gly Asn Ala Pro Phe Ile Val Phe Asp
                                   . 10
Asp Ala Asp Val Asp Ala Ala Val Ser Asn Ala Val Ala Cys Lys Phe
                                25
Arg Cys Gly Gln Thr Cys Ile Ser Ala Asn Arg Ile Tyr Val His
                            40
        35
Glu Gln Val His Asp Glu Phe Val Ser Lys Phe Gly Glu Arg Val Lys
                                             60
                        55
Lys Leu Arg Val Gly Tyr Gly Leu Asp Glu Asn Ile Asn Ile Gly Pro
```

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65
                      70
                                                               80
  Leu Val Asn Glu Ala Ser Gln Asp Lys Ala Glu Ser His Val Arg Ala
                  85
                                      90
  Met Gln
  <210> 1435
  <211> 1772
  <212> DNA
 <213> Homo sapiens
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 ccagcctgcg tatttaacaa tgtggaatat tatgatggag acatgtttcg aatggacaac
 tgtcggttct gtcgatgcca agggggcgtt gccatctgct tcactgccca gtgtggtgag
 240
 ataaactgcg agaggtacta cgtgcccgaa ggagagtgct gcccagtgtg tgaaatccag
 tgtatcettt taataateee getggetget gecaatggee tgateettge ceaeggagae
 360
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 gcgaccgtct gcggacagac ctgcacaaac cctgtgaaag tgcctgggga gtgttgccct
gtgtgcgaag aaccaaccat catcacagtt gatccacctg catgtgggga gttatcaaac
tgcactctga cagggaagga ctgcattaat ggtttcaaac gcgatcacaa tggttgtcgg
acctgtcagt gcataaacac cgaggaacta tgttcagaac gtaaacaagg ctgcaccttg
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aggeccaaga agtgcagace cataatetgt gacaagtatt gtccaettgg attgetgaag
aataagcacg gctgtgacat ctgtcgctgt aagaaatgtc cagagctctc atgcagtaag
natctgeece ttgggtttee ageaggacag teaeggetgt ettatetgea agtgeagaga
ggeetetget teagetggge caeceatest gtegggeast tgteteaceg tggatggtea
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acgggaaatg tgtgccctga tcacctgccc ggtgcctgcc tgtggcaacc ccaccattca
1080
ccctggacag tgctgcccat catgtgcaga tgactttgtg gtgcagaagc cagagctcag
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aacattgact cetgtactca gtgcacetge cacageggae gggtgetgtg tgagacagag
1260
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gtgtgccae cgctgctctg ccagaacccc tcacgcaccc aggattcctg ctgcccacag
1320
tgtacagatc aaccttttcg gccttccttg tcccgcaata acagcgtacc taattactgc
1380
aaaaatgatg aaggggatat attootggca gotgagtoot ggaagcotga ogtttgtaco
agetgeatet geattgatag egtaattage tgtttetetg agteetgeee ttetgtatee
tgtgaaaaac ctgtcttgag aaaaggccag tgttgtccct actgcataga agacacaatt
ccaaagaagg tggtgtgcca cttcagtggg aaggcctatg ccgacgagga gcggtgggac
cttgacagct gcacccactg ctactgcctg cagggccaga ccttctgctc gaccgtcagc
1680
tgccccctc tgccctgtgt tgagcccatc aacgtggaag gaagttgctg cccaatgtgt
ccagaaatgt atgtcccagt cccttcacgc gt
1772
<210> 1436
<211> 322
<212> PRT
<213> Homo sapiens
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Xaa Ser Gly Leu Cys Gly Phe Pro Val Cys Glu Val Gly Ser Thr Pro
                                     10
Arg Ile Val Ser Arg Gly Asp Gly Thr Pro Gly Lys Cys Cys Asp Val
                                                    30
                                25
Phe Glu Cys Val Asn Asp Thr Lys Pro Ala Cys Val Phe Asn Asn Val
                            40
Glu Tyr Tyr Asp Gly Asp Met Phe Arg Met Asp Asn Cys Arg Phe Cys
Arg Cys Gln Gly Gly Val Ala Ile Cys Phe Thr Ala Gln Cys Gly Glu
                    70
Ile Asn Cys Glu Arg Tyr Tyr Val Pro Glu Gly Glu Cys Cys Pro Val
                                    90
                85
Cys Glu Ile Gln Cys Ile Leu Leu Ile Ile Pro Leu Ala Ala Asn
            100
                                105
Gly Leu Ile Leu Ala His Gly Asp Arg Trp Arg Glu Asp Asp Cys Thr
                            120
Phe Cys Gln Cys Val Asn Gly Glu Arg His Cys Val Ala Thr Val Cys
                                            140
                        135
    130
Gly Gln Thr Cys Thr Asn Pro Val Lys Val Pro Gly Glu Cys Cys Pro
                    150
                                        155
Val Cys Glu Glu Pro Thr Ile Ile Thr Val Asp Pro Pro Ala Cys Gly
                                    170
                165
Glu Leu Ser Asn Cys Thr Leu Thr Gly Lys Asp Cys Ile Asn Gly Phe
            180
                                185
Lys Arg Asp His Asn Gly Cys Arg Thr Cys Gln Cys Ile Asn Thr Glu
                                                205
                            200
Glu Leu Cys Ser Glu Arg Lys Gln Gly Cys Thr Leu Asn Cys Pro Phe
                                            220
    210
                        215
Gly Phe Leu Thr Asp Ala Gln Asn Cys Glu Ile Cys Glu Cys Arg Pro
```

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225
                     230
                                          235
 Arg Pro Lys Lys Cys Arg Pro Ile Ile Cys Asp Lys Tyr Cys Pro Leu
                 245
                                      250
 Gly Leu Leu Lys Asn Lys His Gly Cys Asp Ile Cys Arg Cys Lys Lys
                                  265
                                                      270
 Cys Pro Glu Leu Ser Cys Ser Lys Xaa Leu Pro Leu Gly Phe Pro Ala
         275
                             280
                                                  285
 Gly Gln Ser Arg Leu Ser Tyr Leu Gln Val Gln Arg Gly Leu Cys Phe
                         295
                                              300
 Ser Trp Ala Thr His Pro Val Gly His Leu Ser His Arg Gly Trp Ser
                     310
                                          315
                                                              320
 Ser Ser
 <210> 1437
 <211> 372
 <212> DNA
 <213> Homo sapiens
<400> 1437
cgggaactgt gctcgcccac catccggtga ccggtgtcgg gcagtggcaa ctcaacaccc
aggecatgae eggagecate eegageagea ggtgeaegge eegggeegtt gaetegtgga
cccgtaccct catgacctcg atgcaacttc cacggtggtc caccgatcac atcgaccgct
eggtecatgt egatgetgag cagttegace ggttgegeag egagtteetg teeegtggge
acagttetgg ccctgccgca catggggtcc tgggacttgg ccggggcctg ggtggccaqa
egeggettet eeeegagtte egtegeggag aatetteega gggeacagtt egagttgtte
tgccgcacgc gt
372
<210> 1438
<211> 62
<212> PRT
<213> Homo sapiens
<400> 1438
Met Ser Met Leu Ser Ser Ser Thr Gly Cys Ala Ala Ser Ser Cys Pro
                                     10
                                                         15
Val Gly Thr Val Leu Ala Leu Pro His Met Gly Ser Trp Asp Leu Ala
            20
Gly Ala Trp Val Ala Arg Arg Gly Phe Ser Pro Ser Ser Val Ala Glu
                            40 -
Asn Leu Pro Arg Ala Gln Phe Glu Leu Phe Cys Arg Thr Arg
<210> 1439
<211> 471
<212> DNA
<213> Homo sapiens
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<400> 1439
accggtttgc tttccacaag gagagctaaa atgccggttg ctaagcagca tacatgccgc
tgcttctttc cacaatgtag acttaaaaaa atcgccgtaa acattttacc atatgattga
gtcaggtgtg gggagtcgca gtaaacattt taccatgtga ttgagtcatg ggtggggagt
cgcggaaata cacagggcag gcagttcgct atcacgatgt tctctctcat ttctgtcttt
ggtctgtctt cctgggtaat gtcacatgga gacccagggg atctgccatc agctgtgtgc
agtgggttaa caagacgacg gggaacttca gagtgcaggc agtcctcatc tttggcagat
tetgtatttg cacattcace cactcactga aatgcatttg taaccccaaa atcaatacag
cggtttcaca gtcattttcc gacacgggca gaggggtgaa gatactgagt c
471
<210> 1440
<211> 101
<212> PRT
<213> Homo sapiens
<400> 1440
Met Gly Gly Glu Ser Arg Lys Tyr Thr Gly Gln Ala Val Arg Tyr His
                                    10
Asp Val Leu Ser His Phe Cys Leu Trp Ser Val Phe Leu Gly Asn Val
Thr Trp Arg Pro Arg Gly Ser Ala Ile Ser Cys Val Gln Trp Val Asn
        35
Lys Thr Thr Gly Asn Phe Arg Val Gln Ala Val Leu Ile Phe Gly Arg
                        55
Phe Cys Ile Cys Thr Phe Thr His Ser Leu Lys Cys Ile Cys Asn Pro
                    70
                                        75
Lys Ile Asn Thr Ala Val Ser Gln Ser Phe Ser Asp Thr Gly Arg Gly
                                    90
Val Lys Ile Leu Ser
            100
<210> 1441
<211> 376
<212> DNA
<213> Homo sapiens
<400> 1441
nnngagtege ggggaeette atggaetete tegtgeteeg tageteacae teacegeaeg
gcageteaca tteaceacae gggaacteae teteaceaca eggeagetea etetetetge
accqcaqctc acactcaccg cacggcagct cactctcacc gcacggcagc tcacactcac
cacacagcag ctcactctta ccggacgggg aacctaaact taccggacgg gaagcctcac
240
```

teteacegea eggaaagete acaeteaceg cacegeagee acteteaceg cacegeaget

```
cacteteace geacegeage teacteteac eggacgggag eteactetea ceacaeggea
 cctcactctc acgcqt
 376
 <210> 1442
 <211> 125
 <212> PRT
 <213> Homo sapiens
 <400> 1442
 Xaa Glu Ser Arg Gly Pro Ser Trp Thr Leu Ser Cys Ser Val Ala His
 Thr His Arg Thr Ala Ala His Ile His His Thr Gly Thr His Ser His
             20
                                 25
 His Thr Ala Ala His Ser Leu Cys Thr Ala Ala His Thr His Arg Thr
                             40
 Ala Ala His Ser His Arg Thr Ala Ala His Thr His His Thr Ala Ala
                         55
 His Ser Tyr Arg Thr Gly Asn Leu Asn Leu Pro Asp Gly Lys Pro His
                     70
 Ser His Arg Thr Glu Ser Ser His Ser Pro His Arg Ser His Ser His
Arg Thr Ala Ala His Ser His Arg Thr Ala Ala His Ser His Arg Thr
                                 105
Gly Ala His Ser His His Thr Ala Pro His Ser His Ala
        115
                             120
 <210> 1443
 <211> 286
<212> DNA
<213> Homo sapiens
<400> 1443
atggcagccc tgcgtcccaa ggagctgcca caactaatgg tcgccatcgg caatgcgagc
ataaaacgga caacacgctg cctgatcgaa tggcaactcc acaccatgac ccgtcctgcg
gaagccgcta cgacttcctg ggctgacatc gactgcgaca agaaaacctg gacgatccca
gcggagcgta tgaaaaagcg acgtgcccat gtcataccgc taaccgagca cgcacttgcc
240
ttgcttgaga caatcaaacc ctacagcggn cacagagagt acgcgt
<210> 1444
<211> 95
<212> PRT
<213> Homo sapiens
<400> 1444
Met Ala Ala Leu Arg Pro Lys Glu Leu Pro Gln Leu Met Val Ala Ile
```

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10
                 5
Gly Asn Ala Ser Ile Lys Arg Thr Thr Arg Cys Leu Ile Glu Trp Gln
Leu His Thr Met Thr Arg Pro Ala Glu Ala Ala Thr Thr Ser Trp Ala
                            40
Asp Ile Asp Cys Asp Lys Lys Thr Trp Thr Ile Pro Ala Glu Arg Met
Lys Lys Arg Arg Ala His Val Ile Pro Leu Thr Glu His Ala Leu Ala
                                        75
Leu Leu Glu Thr Ile Lys Pro Tyr Ser Gly His Arg Glu Tyr Ala
                85
<210> 1445
<211> 294
<212> DNA
<213> Homo sapiens
<400> 1445
naccggttca ccggggaggc cttcgatggg ggcaaggtca gcatggttgg cccgattccc
atgtacctgt atggcacctt cgtcgttccg gacttcgacg cattcatctc cggcaagcag
actccctacc gggagacggt ctccaagcgg accactactt ggttctttcg agccggctca
gaggtttatg agctggccnt cccccgagga gtcgtgttcg ccatgcaaag cgcctcgttg
agggtggacc ccgacaacac cgtcgacaag ctgccaacac tcggcgagcg cctg
294
<210> 1446
<211> 98
<212> PRT
<213> Homo sapiens
<400> 1446
Xaa Arg Phe Thr Gly Glu Ala Phe Asp Gly Gly Lys Val Ser Met Val
Gly Pro Ile Pro Met Tyr Leu Tyr Gly Thr Phe Val Val Pro Asp Phe
                               25
Asp Ala Phe Ile Ser Gly Lys Gln Thr Pro Tyr Arg Glu Thr Val Ser
                            40
Lys Arg Thr Thr Trp Phe Phe Arg Ala Gly Ser Glu Val Tyr Glu
                        55
Leu Ala Xaa Pro Arg Gly Val Val Phe Ala Met Gln Ser Ala Ser Leu
                    70
                                        75
Arg Val Asp Pro Asp Asn Thr Val Asp Lys Leu Pro Thr Leu Gly Glu
Arg Leu
<210> 1447
<211> 363
<212> DNA
<213> Homo sapiens
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nnncagaacc agaagatcaa cctgcatgac ggctcgttct ccgacgttgg cggcatggtg

<400> 1447

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ggtaatatet ceattgeeca gggtgteacg ategagaacg cegteggegg ttegggeaac
 gacctgctga tcggcaacga tgcggccaac gaactgcgcg gcggtgccgg caacgatatc
 ctctacgggg ctggcggtgc cgaccaggtt tgggttggtt cgggcaacaa taccttcgtg
 ttcgccgccg tttccgactc ggcgccgaaa gcggccgacc ggatcatgga cttcaccagt
 ggccaggaca agatcgatct gtccgggatc acccatggtt cgggcctgac cttcgtcaac
 360
 gcg
 363
 <210> 1448
 <211> 121
 <212> PRT
 <213> Homo sapiens
 <400> 1448
Xaa Gln Asn Gln Lys Ile Asn Leu His Asp Gly Ser Phe Ser Asp Val
                                     10
Gly Gly Met Val Gly Asn Ile Ser Ile Ala Gln Gly Val Thr Ile Glu
             20
Asn Ala Val Gly Gly Ser Gly Asn Asp Leu Leu Ile Gly Asn Asp Ala
                                                 45
Ala Asn Glu Leu Arg Gly Gly Ala Gly Asn Asp Ile Leu Tyr Gly Ala
                         55
Gly Gly Ala Asp Gln Val Trp Val Gly Ser Gly Asn Asn Thr Phe Val
                     70
                                         75
Phe Ala Ala Val Ser Asp Ser Ala Pro Lys Ala Ala Asp Arg Ile Met
                                     90
Asp Phe Thr Ser Gly Gln Asp Lys Ile Asp Leu Ser Gly Ile Thr His
            100
Gly Ser Gly Leu Thr Phe Val Asn Ala
                            120
<210> 1449
<211> 541
<212> DNA
<213> Homo sapiens
<400> 1449
aggogotaco agattatggg otgocogaco toaatgacat gogottgago otgoatgaat
cactcageca ategegettg gegattgaac getttateca ggegtaegag ceteggttgg
120
ggaatgtacg tgtcaggagg agggagggtg cctacaaccc tttggtactg gcgtttgtga
ttgaggcaac cgtcgtcatc gatggtgtca tccaacctgt ggtgtttaac gcacacctgg
240
```

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tgggggggg gacgggtcga gtgtgttacc tgatgttctt tgagctcttt taccagagtg
aactcaqtqc attqcqcacq cttgggcgqc gtttttctga acgcaatccc gccctggcac
cctttcttgc cgattccagg ccaggacccg gacgtcgagg gtctattgaa agtctttgcc
420
tttctccccg ggcgcctgcg ccagaagctt gctgacgagc ttctgaggtt gacccattca
ttgatgcact tggtgtggcc caattacatg cggccattgc cggccttcag tattttgcag
540
t
541
<210> 1450
<211> 138
<212> PRT
<213> Homo sapiens
<400> 1450
Met Arg Leu Ser Leu His Glu Ser Leu Ser Gln Ser Arg Leu Ala Ile
 1
Glu Arg Phe Ile Gln Ala Tyr Glu Pro Arg Leu Gly Asn Val Arg Val
Arg Arg Arg Glu Gly Ala Tyr Asn Pro Leu Val Leu Ala Phe Val Ile
        35
Glu Ala Thr Val Val Ile Asp Gly Val Ile Gln Pro Val Val Phe Asn
                        55
Ala His Leu Val Gly Gly Gly Thr Gly Arg Val Cys Tyr Leu Met Phe
                                        75
                    70
Phe Glu Leu Phe Tyr Gln Ser Glu Leu Ser Ala Leu Arg Thr Leu Gly
                85
                                    90
Arg Arg Phe Ser Glu Arg Asn Pro Ala Leu Ala Pro Phe Leu Ala Asp
                                105
Ser Arg Pro Gly Pro Gly Arg Arg Gly Ser Ile Glu Ser Leu Cys Leu
                            120
                                                125
Ser Pro Arg Ala Pro Ala Pro Glu Ala Cys
                        135
    130
<210> 1451
<211> 326
<212> DNA
<213> Homo sapiens
<400> 1451
aggeetetgg egagttgate tacagetteg gacceggtge tatggetaet ggegteaagt
acacgaacac agtttgcact cctgtgggcg actacgaggt ggtgctgacg gattcttggg
gtgatggctg gaaccegggt tcttacctga acatgtacga cagcteggac aacttgatce
aggagttcac gatggattac gacgcctctt ctcgtaacat taaggagaag cacggcttct
tcacggtggc ttccaccacg agcagcggca ctgtctggaa gattatggcg aacaagaagg
300
```

tggacaagga gtggaactct gtggac

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326
  <210> 1452
  <211> 95
 <212> PRT
 <213> Homo sapiens
 <400> 1452
 Met Ala Thr Gly Val Lys Tyr Thr Asn Thr Val Cys Thr Pro Val Gly
                                      10
 Asp Tyr Glu Val Val Leu Thr Asp Ser Trp Gly Asp Gly Trp Asn Pro
             20
                                  25
 Gly Ser Tyr Leu Asn Met Tyr Asp Ser Ser Asp Asn Leu Ile Gln Glu
         35
                              40
 Phe Thr Met Asp Tyr Asp Ala Ser Ser Arg Asn Ile Lys Glu Lys His
                          55
                                              60
 Gly Phe Phe Thr Val Ala Ser Thr Thr Ser Ser Gly Thr Val Trp Lys
                     70 .
                                          75
 Ile Met Ala Asn Lys Lys Val Asp Lys Glu Trp Asn Ser Val Asp
                 85
 <210> 1453
 <211> 326
 <212> DNA
 <213> Homo sapiens
 <400> 1453
 eggeegegeg gedecaegtg caeegegtge atggteeete gaggaegege atetgeagee
 60
 cccgctcccc gcaaacctcc aggccggaga gctccggcca aggccgctgc atcacatgat
 acaggagggg catgcacacg ctcacgtgca cacagcctca aacacgctca tccgtacata
caggagtgtg tgaacgcact gaggtgcaca ggacaaagac acagacacct gtttgcacac
cgactcgcct atagaaatgt gcaaaccacc cgtgcgcaca ggcccctcca cccatgcagg
cgtgtgcaca tcacccacac ggacac
326
<210> 1454
<211> 98
<212> PRT
<213> Homo sapiens
<400> 1454
Met Val Pro Arg Gly Arg Ala Ser Ala Ala Pro Ala Pro Arg Lys Pro
                                     10
Pro Gly Arg Arg Ala Pro Ala Lys Ala Ala Ala Ser His Asp Thr Gly
                                 25
Gly Ala Cys Thr Arg Ser Arg Ala His Ser Leu Lys His Ala His Pro
                             40
Tyr Ile Gln Glu Cys Val Asn Ala Leu Arg Cys Thr Gly Gln Arg His
```

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50
Arg His Leu Phe Ala His Arg Leu Ala Tyr Arg Asn Val Gln Thr Thr
                    70
                                         75
Arg Ala His Arg Pro Leu His Pro Cys Arg Arg Val His Ile Thr His
                                     90
Thr Asp
<210> 1455
<211> 314
<212> DNA
<213> Homo sapiens
<400> 1455
gatccagtca aaaaagcatg tggggttgct cacgctggtt ggaaaggtac tttgttgggt
gttgctatgg ctacagtgaa tgctatgata gcagaatatg gctgccgttt ggaaaaactt
tggtggacct tggacccttc agtgggacct ggctgtttta ctcttccagg ggaatcagca
gaggcatttc ataatcttca tcctgcatgt gtacaactat ttgattcacc aaatccctgt
ategacatee gtaaageeac aagatacttg actggatttt tgtataactg ettectgeet
ccttccaaac tgac
314
<210> 1456
<211> 104
<212> PRT
<213> Homo sapiens
<400> 1456
Asp Pro Val Lys Lys Ala Cys Gly Val Ala His Ala Gly Trp Lys Gly
1
Thr Leu Leu Gly Val Ala Met Ala Thr Val Asn Ala Met Ile Ala Glu
            20
                                25
Tyr Gly Cys Arg Leu Glu Lys Leu Trp Trp Thr Leu Asp Pro Ser Val
        35
                            40
Gly Pro Gly Cys Phe Thr Leu Pro Gly Glu Ser Ala Glu Ala Phe His
                        55
                                            60
Asn Leu His Pro Ala Cys Val Gln Leu Phe Asp Ser Pro Asn Pro Cys
                    70
Ile Asp Ile Arg Lys Ala Thr Arg Tyr Leu Thr Gly Phe Leu Tyr Asn
               85
                                    90
Cys Phe Leu Pro Pro Ser Lys Leu
            100
<210> 1457
<211> 437
<212> DNA
<213> Homo sapiens
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<400> 1457

nattcaccag aatccccaga atcccccaaa tactacattg cactttaggg ttcctttcta

gcacatgcat tgctaaaatc ggcgcccaga accttctctg cccctctccc atgggatgca

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atgtcagcgg agaaacagac caagtctgca ctagcctgtc cctacaccct ccccaggaaa
 180
 aggicecect gegecaagic aacageteee agaggaagee caetgactge tetetteagg
 gtgggggaca caggaagtcc acgcttgcac ggaggggacg ggcacaccta ccgtgactgc
 cagageceat tttgggagte tgattggaat ttatacagea ggageaetgg geaeteggae
360
 aactccagcc cacaaccaag tcactgggct gcctacccac tgcccaagtg cctcaagtca
acacattcct gcactgn
437
<210> 1458
<211> 105
<212> PRT
<213> Homo sapiens
<400> 1458
Met Ser Ala Glu Lys Gln Thr Lys Ser Ala Leu Ala Cys Pro Tyr Thr
 1
Leu Pro Arg Lys Arg Ser Pro Cys Ala Lys Ser Thr Ala Pro Arg Gly
                                 25
Ser Pro Leu Thr Ala Leu Phe Arg Val Gly Asp Thr Gly Ser Pro Arg
Leu His Gly Gly Asp Gly His Thr Tyr Arg Asp Cys Gln Ser Pro Phe
Trp Glu Ser Asp Trp Asn Leu Tyr Ser Arg Ser Thr Gly His Ser Asp
Asn Ser Ser Pro Gln Pro Ser His Trp Ala Ala Tyr Pro Leu Pro Lys
                85
                                     90
                                                         95
Cys Leu Lys Ser Thr His Ser Cys Thr
            100
                                105
<210> 1459
<211> 295
<212> DNA
<213> Homo sapiens
<400> 1459
ngagaggtca ceggccaega gattecegeg gaggtegege ceegeegege gggegaeceg
gccgtactca tcgcttcttc ggagaagatc aagcgggagc tgggctggaa cccgacgcgc
acggatetge geogeategt egaggaegee tgggeettta eggetggggg ggeogaacgg
taaaccettg gtaaggegae geagttatee tegateteet eecagageag geggeageee
gccactgcgg tgtcgagcat gccctcccac tccccgatcg ccatgagctg gcgan
295
```

```
<210> 1460
<211> 60
<212> PRT
<213> Homo sapiens
<400> 1460
Xaa Glu Val Thr Gly His Glu Ile Pro Ala Glu Val Ala Pro Arg Arg
Ala Gly Asp Pro Ala Val Leu Ile Ala Ser Ser Glu Lys Ile Lys Arg
                                 25
Glu Leu Gly Trp Asn Pro Thr Arg Thr Asp Leu Arg Arg Ile Val Glu
                             40
Asp Ala Trp Ala Phe Thr Ala Gly Gly Ala Glu Arg
    50
                        55
<210> 1461
<211> 432
<212> DNA
<213> Homo sapiens
<400> 1461
nnaagcttac gtgaaatgaa acgtcaatgg caacaggcga caatcgtgcc agagaaattg
gttgaagcac agtcaattgc gggttctaaa tgcgaacacg cctggcgctt acaacgttca
gaaaatgact gggtaggctt tgaaaaaaat tggaaagagg ttgttgcatt atcccgtgaa
gaagcacaaa ttcgcggtga agcgcttaat ctaacgcctt atgatgcgat gcttgataag
tttgaaccag gcacgacaac ggtttcgctc aatactttgt tttcaaaggt aaagacgtgg
ttacctacgt taattgaaaa agcgttagaa aagcagcaat cagaatctat cattatgcca
tcaggcacct tttccacggc gaatcaaaaa gcccttggat tagaaataat gaaattgtta
aaattcgact tt
432
<210> 1462
<211> 144
<212> PRT
<213> Homo sapiens
<400> 1462
Xaa Ser Leu Arg Glu Met Lys Arg Gln Trp Gln Gln Ala Thr Ile Val
Pro Glu Lys Leu Val Glu Ala Gln Ser Ile Ala Gly Ser Lys Cys Glu
                                25
His Ala Trp Arg Leu Gln Arg Ser Glu Asn Asp Trp Val Gly Phe Glu
                            40
Lys Asn Trp Lys Glu Val Val Ala Leu Ser Arg Glu Glu Ala Gln Ile
                        55
Arg Gly Glu Ala Leu Asn Leu Thr Pro Tyr Asp Ala Met Leu Asp Lys
```

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65
                     70
 Phe Glu Pro Gly Thr Thr Thr Val Ser Leu Asn Thr Leu Phe Ser Lys
                                     90
 Val Lys Thr Trp Leu Pro Thr Leu Ile Glu Lys Ala Leu Glu Lys Gln
             100
                                 105
 Gln Ser Glu Ser Ile Ile Met Pro Ser Gly Thr Phe Ser Thr Ala Asn
                             120
 Gln Lys Ala Leu Gly Leu Glu Ile Met Lys Leu Leu Lys Phe Asp Phe
                         135
                                             140
 <210> 1463
 <211> 421
 <212> DNA
 <213> Homo sapiens
 <400> 1463
nacgcgttcc agagcaagct ggacctgacc gccttcgaat tcttctccga caaggccctg
gccaaagtca tgggccgtgg cgacgtaccg gcaccgttcg aaaccgaatg cccgttctac
gegetgetgg aattegaage caccaccgaa gaagtegeca accaegecet ggaaacette
gagcactgcg ttgagcaggg ctgggtgctg gacggcgtga tgagccagag cgaaacccaa
ctgcacaacc tgtggaaact gcgcgagtac atctcggaga ctatttccca ctggacgccc
tacaagaacg acatctccgt gaccgtttcc aaagtccccg cgttcttgaa ggaaattqac
gegategteg tgageattac eeggactteg aaattgttgg teggeeacat eggeqaeqea
420
421
<210> 1464
<211> 140
<212> PRT
<213> Homo sapiens
<400> 1464
Xaa Ala Phe Gln Ser Lys Leu Asp Leu Thr Ala Phe Glu Phe Phe Ser
Asp Lys Ala Leu Ala Lys Val Met Gly Arg Gly Asp Val Pro Ala Pro
                                25
Phe Glu Thr Glu Cys Pro Phe Tyr Ala Leu Leu Glu Phe Glu Ala Thr
                            40
Thr Glu Glu Val Ala Asn His Ala Leu Glu Thr Phe Glu His Cys Val
                        55
Glu Gln Gly Trp Val Leu Asp Gly Val Met Ser Gln Ser Glu Thr Gln
                    70
Leu His Asn Leu Trp Lys Leu Arg Glu Tyr Ile Ser Glu Thr Ile Ser
                                    90
His Trp Thr Pro Tyr Lys Asn Asp Ile Ser Val Thr Val Ser Lys Val
                                105
Pro Ala Phe Leu Lys Glu Ile Asp Ala Ile Val Val Ser Ile Thr Arg
```

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115
                            120
                                                 125
Thr Ser Lys Leu Leu Val Gly His Ile Gly Asp Ala
                        135
<210> 1465
<211> 424
<212> DNA
<213> Homo sapiens
<400> 1465
gtgcacggtc tttgagctgc aattcccagg aatcaggggc cataggcggt agatggcatg
cagecteteg ggegggaaag tggtetacag tgcetgettg ceegggeagg cagetegtag
gettatatge ttagtggtta tggeccetae caetgttttt gaeegegeta ceattegeea
caacctcacc gaattcaaac tccggtggat ttcccacgcc gagcagtgga aggcggaaaa
ccgtcctgca acagagtcta aagccgctga gacggactgc tcagtacatg gggatctctg
gaccttggcc acggaagttt tcggtcaagc acccgaattc gacttcccat atatgaaact
cacteggeag gaatgtaggt teettttet geegagaaac gacateaget tgagetgett
cacq
424
<210> 1466
<211> 124
<212> PRT
<213> Homo sapiens
<400> 1466
Met Ala Cys Ser Leu Ser Gly Gly Lys Val Val Tyr Ser Ala Cys Leu
Pro Gly Gln Ala Ala Arg Arg Leu Ile Cys Leu Val Val Met Ala Pro
Thr Thr Val Phe Asp Arg Ala Thr Ile Arg His Asn Leu Thr Glu Phe
Lys Leu Arg Trp Ile Ser His Ala Glu Gln Trp Lys Ala Glu Asn Arg
Pro Ala Thr Glu Ser Lys Ala Ala Glu Thr Asp Cys Ser Val His Gly
                                        75
                    70
Asp Leu Trp Thr Leu Ala Thr Glu Val Phe Gly Gln Ala Pro Glu Phe
                85
                                    90
Asp Phe Pro Tyr Met Lys Leu Thr Arg Gln Glu Cys Arg Phe Leu Phe
                                105
Leu Pro Arg Asn Asp Ile Ser Leu Ser Cys Phe Thr
        115
                            120
<210> 1467
<211> 441
<212> DNA
<213> Homo sapiens
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<400> 1467
 nacgcgtgac ggcgaatgag cggcggaggc atgacaacga gcgcaccgtt ccgcagcttg
 gtgccgtgca tcatggctca agtgccgcgc aactttcqqc tqctcqaqqa gctqqaqaaa
ggcgaaaagg ggctaggaaa tggctcgtgc tcttacggcc ttgcgaacag tgatgacatt
cgtacgtatg cgcctgtgct gatggtcatg acaacgtgga atgccacgat cctaggcccg
gccaactcgg tgcatgagaa ccgcatatac tgcctgcgcc tcgtgtgtgg cgactcgtac
cetettgtge egeetgagat ttggttecag aegegeatea aettgeegtg egtegatgee
cacacgggcc gcgtcatgcc cgatcagttc tcgcccctct tgcattggcg tgatgagtac
actatggaaa gctgctgcat g
441
<210> 1468
<211> 123
<212> PRT
<213> Homo sapiens
<400> 1468
Met Ala Gln Val Pro Arg Asn Phe Arg Leu Leu Glu Glu Leu Glu Lys
                                    10
Gly Glu Lys Gly Leu Gly Asn Gly Ser Cys Ser Tyr Gly Leu Ala Asn
Ser Asp Asp Ile Arg Thr Tyr Ala Pro Val Leu Met Val Met Thr Thr
Trp Asn Ala Thr Ile Leu Gly Pro Ala Asn Ser Val His Glu Asn Arg
Ile Tyr Cys Leu Arg Leu Val Cys Gly Asp Ser Tyr Pro Leu Val Pro
Pro Glu Ile Trp Phe Gln Thr Arg Ile Asn Leu Pro Cys Val Asp Ala
                85
                                    90
His Thr Gly Arg Val Met Pro Asp Gln Phe Ser Pro Leu Leu His Trp
            100
                                105
Arg Asp Glu Tyr Thr Met Glu Ser Cys Cys Met
        115
                            120
<210> 1469
<211> 468
<212> DNA
<213> Homo sapiens
nngctcgatc tagtctatgg gctaaatgat cgaccgaacc cttttattgc ttttttagcg
gegetteaac atetttage gattttagtg ceaattgtea cenetggatt attgatttgt
120
ttggcattag gcgtgtctcg cgaagacacc aatatgattc tttctatgtc attaattatt
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teaggqateq egactttett geaatgtaaa aaagttggte catttggege tggattaett
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gtggctgctg gcacacctgt cgaacaagtt atggctgcga tttttggtgt cgtaatcgca
360
ggttcattta tcgaaatggg cgtatctcaa attttacctt gggtaaaaaa gctgattact
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468
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Ala Phe Leu Ala Ala Leu Gln His Leu Leu Ala Ile Leu Val Pro Ile
            20
                                 25
Val Thr Xaa Gly Leu Leu Ile Cys Leu Ala Leu Gly Val Ser Arg Glu
Asp Thr Asn Met Ile Leu Ser Met Ser Leu Ile Ile Ser Gly Ile Ala
                        55
Thr Phe Leu Gln Cys Lys Lys Val Gly Pro Phe Gly Ala Gly Leu Leu
                                        75
                    70
Ile Val Gln Gly Thr Ser Phe Asn Phe Ile Gly Pro Ile Ile Gly Ile
                85
                                    90
Gly Ser Ser Met Val Ala Ala Gly Thr Pro Val Glu Gln Val Met Ala
                                105
Ala Ile Phe Gly Val Val Ile Ala Gly Ser Phe Ile Glu Met Gly Val
                            120
Ser Gln Ile Leu Pro Trp Val Lys Lys Leu Ile Thr Pro Leu Val Thr
                        135
Gly Ile Val Val Leu Leu Ile Gly Leu Pro Leu Met
                                        155
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                    150
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<211> 341
<212> DNA
<213> Homo sapiens
<400> 1471
gcgtggatgg ggatcctgaa aaacaatggc gtgctgaata acttcttgct gtggctcggc
gttatcgatc agccgctgac gattttgcac accaatctgg cggtgtatat cggcattgtg
tacgettate tgeegtttat ggtactgeec atttataegg egetgaegeg cattgattae
180
togotggtgg aggeotoact ggatotoggt gooogtoogc tgaaaacgtt tttcaatgtg
attgtcccgc tcaccaaagg cggcattatc gcggggtcga tgctggtgtt tatcccggcg
300
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gtcggtgagt ttgttatccc ggaactgctc ggcggcggcc g
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 <400> 1472
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 Leu Trp Leu Gly Val Ile Asp Gln Pro Leu Thr Ile Leu His Thr Asn
 Leu Ala Val Tyr Ile Gly Ile Val Tyr Ala Tyr Leu Pro Phe Met Val
 Leu Pro Ile Tyr Thr Ala Leu Thr Arg Ile Asp Tyr Ser Leu Val Glu
                         55
                                             60
Ala Ser Leu Asp Leu Gly Ala Arg Pro Leu Lys Thr Phe Phe Asn Val
                                         75
Ile Val Pro Leu Thr Lys Gly Gly Ile Ile Ala Gly Ser Met Leu Val
                                     90
Phe Ile Pro Ala Val Gly Glu Phe Val Ile Pro Glu Leu Leu Gly Gly
                                 105
Gly
<210> 1473
<211> 352
<212> DNA
<213> Homo sapiens
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gaaactgacg gaaatgttca aactccagtt tgttgttaag cagatcacta aacttaaaat
gettgtatte tgcaggaaca ttateccaat attetgtteg tttagagaeg ttagagagtg
ataaaatgcc agttccaatt tcacaagtgg tgtcctcagc tttcttggaa aatgtctctt
tatgcaaagc ctgtagcttt ctgaagtatg tggagtctaa ctgtcgagtt tcttccacca
gctccacctt tttataagca atttggtccg attttaccat ctttgtccat gg
352
<210> 1474
<211> 113
<212> PRT
<213> Homo sapiens
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Met Val Lys Ser Asp Gln Ile Ala Tyr Lys Lys Val Glu Leu Val Glu
                                    10
Glu Thr Arg Gln Leu Asp Ser Thr Tyr Phe Arg Lys Leu Gln Ala Leu
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25

20

30

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His Lys Glu Thr Phe Ser Lys Lys Ala Glu Asp Thr Thr Cys Glu Ile
                             40
Gly Thr Gly Ile Leu Ser Leu Ser Asn Val Ser Lys Arg Thr Glu Tyr
Trp Asp Asn Val Pro Ala Glu Tyr Lys His Phe Lys Phe Ser Asp Leu
                                         75
Leu Asn Asn Lys Leu Glu Phe Glu His Phe Arg Gln Phe Leu Glu Thr
His Ser Ser Ser Met Asp Leu Met Cys Trp Thr Asp Ile Glu Gln Phe
            100
                                 105
Arg
<210> 1475
<211> 389
<212> DNA
<213> Homo sapiens
<400> 1475
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gacatcgata ageteatege ttaagaegeg geceageteg ggeeageatt geteaaaaag
ctggtgctgg ttgtccgtga gcgtgccgcg ggggaaaggg acctttgccc aggcgcgggt
agtccaggtc attatcaaag accgcattga agtccgtttg cggcgggcga cccggcggca
tttctccggc agggggtgtt ttgagaatta tccgtgctat acatcgcgcc ctatttttcc
ctgtccaggc atggcaagca atatgccgcg ccgggtattt tccccgccgt atggggaggg
ggataaccgg agcttgacgg ggtggtgtc
389
<210> 1476
<211> 121
<212> PRT
<213> Homo sapiens
<400> 1476
Met Val Leu Ala Pro Val Arg Pro Asn His Ser Ser Thr Ser Ile Ser
                                    10
Ser Ser Leu Lys Thr Arg Pro Ser Ser Gly Gln His Cys Ser Lys Ser
            20
                                25
Trp Cys Trp Leu Ser Val Ser Val Pro Arg Gly Lys Gly Thr Phe Ala
        35
                            40
                                                45
Gln Ala Arg Val Val Gln Val Ile Ile Lys Asp Arg Ile Glu Val Arg
                        55
Leu Arg Arg Ala Thr Arg Arg His Phe Ser Gly Arg Gly Cys Phe Glu
                    70
                                        75
Asn Tyr Pro Cys Tyr Thr Ser Arg Pro Ile Phe Pro Cys Pro Gly Met
                85
                                    90
Ala Ser Asn Met Pro Arg Arg Val Phe Ser Pro Pro Tyr Gly Glu Gly
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100
                                                      110
Asp Asn Arg Ser Leu Thr Gly Trp Cys
        115
                             120
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<213> Homo sapiens
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gegetgtgtg gtattgatge egaaateate egggeaetgg eeegeeaaat ggeggeeaae
cgtacgcaaa tcattgcggg ctggtgcgtg caacgtatgc aacacggcga acaatgggcg
tggatgacgg tagtgctggc ggcgatgctt ggccaaatcg gcttaccggg cggcgggttc
300
ggttttggtt ggccctccaa cggcgcaggt acccccgagc cgcaaggggt gatcctgagc
360
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agcagtacca ttccgatcgc gcgctttatc gatgccatgc tggagccggg caaggagatc
gattggaatg gcaaacgcgt
500
<210> 1478
<211> 166
<212> PRT
<213> Homo sapiens
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Tyr Ser Glu Asn Leu His Asp Thr His Phe Leu Lys Thr Tyr Cys Val
                                    10
Gly Phe Glu Gln Phe Leu Pro Tyr Leu Leu Gly Gln Thr Asp Gly Gln
            20
                                25
Pro Lys Asp Ala Gln Trp Ala Ser Ala Leu Cys Gly Ile Asp Ala Glu
                            40
                                                 45
Ile Ile Arg Ala Leu Ala Arg Gln Met Ala Ala Asn Arg Thr Gln Ile
                        55
Ile Ala Gly Trp Cys Val Gln Arg Met Gln His Gly Glu Gln Trp Ala
                    70.
                                                             80
Trp Met Thr Val Val Leu Ala Ala Met Leu Gly Gln Ile Gly Leu Pro
Gly Gly Gly Phe Gly Phe Gly Trp Pro Ser Asn Gly Ala Gly Thr Pro
                                105
                                                     110
Glu Pro Gln Gly Val Ile Leu Ser Gly Phe Ser Gly Ser Pro Ala Thr
                            120
                                                125
Pro Ala Arg His Ala Lys Gly Asp Phe Lys Gly Tyr Ser Ser Thr Ile
                        135
Pro Ile Ala Arg Phe Ile Asp Ala Met Leu Glu Pro Gly Lys Glu Ile
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155
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145
                    150
Asp Trp Asn Gly Lys Arg
                165
<210> 1479
<211> 421
<212> DNA
<213> Homo sapiens
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ttaagtatgt tctttacatt gaaacagaaa ggaaagaaga taggaaaaat ggtgccagca
cgctgggctt tttttgtttg ctgttttggg tggggtgtgc tagtgcagtg tccggtgtac
gettttgtcc tcaaacaggc ttgttccccg gtcagagttt cattattgtt gctggtaaac
240
aaatgccaag tttgacaaaa aacagtgaaa taaagcaaaa gattttgaaa aatgcttcat
catgtcagaa ggaaagaacc cttttcacgg gtgcctgccc acatttcctt gcccagcctg
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420
t
421
<210> 1480
<211> 133
<212> PRT
<213> Homo sapiens
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Val Leu Tyr Ile Glu Thr Glu Arg Lys Glu Asp Arg Lys Asn Gly Ala
            20
                                25
Ser Thr Leu Gly Phe Phe Cys Leu Leu Phe Trp Val Gly Cys Ala Ser
                            40
                                                45
Ala Val Ser Gly Val Arg Phe Cys Pro Gln Thr Gly Leu Phe Pro Gly
                                            60
Gln Ser Phe Ile Ile Val Ala Gly Lys Gln Met Pro Ser Leu Thr Lys
                    70
                                        75
65
Asn Ser Glu Ile Lys Gln Lys Ile Leu Lys Asn Ala Ser Ser Cys Gln
                                    90
Lys Glu Arg Thr Leu Phe Thr Gly Ala Cys Pro His Phe Leu Ala Gln
                                105
Pro Glu Thr Leu Leu Thr Leu Asn Tyr Leu Leu Leu Phe Tyr Phe Tyr
        115
                            120
Glu Asn Tyr Ile Arg
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<210> 1481
<211> 545
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<212> DNA
 <213> Homo sapiens
 <400> 1481
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 teeggatgea gatgggegag ttggccaege gegattattt gegeteggag etaegegaeg
agttgcgctc cctgctcgag gagatcgagg cctcaccggc ctcccactaa ctgacccggt
tegegacgag egagttgteg categggeca aeggtgtgta gacaagteag catgageace
gagaacccag tggttaaggc cattgccgat gcgttgtcgc acgtcaatga ccccgagatc
aaacgcccca ttaccgatct caacatgatt gatgagatta ccgtcgacga gcaaggacgc
getttegtee geateetget gacegtegee gggtgteece teaagacega getgegtgag
caggccaccg aggctgtgcg cagcgttgac ggggtgacca gtgtttccgt cgaactcggc
accatgaccg acgaacagcg cgatgctctc aaagttcagc tgcgcggtga cgtccccgaa
cgcgt
545
<210> 1482
<211> 104
<212> PRT
<213> Homo sapiens
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Met Ser Thr Glu Asn Pro Val Val Lys Ala Ile Ala Asp Ala Leu Ser
His Val Asn Asp Pro Glu Ile Lys Arg Pro Ile Thr Asp Leu Asn Met
Ile Asp Glu Ile Thr Val Asp Glu Gln Gly Arg Ala Phe Val Arg Ile
                            40
Leu Leu Thr Val Ala Gly Cys Pro Leu Lys Thr Glu Leu Arg Glu Gln
                        55
Ala Thr Glu Ala Val Arg Ser Val Asp Gly Val Thr Ser Val Ser Val
Glu Leu Gly Thr Met Thr Asp Glu Gln Arg Asp Ala Leu Lys Val Gln
Leu Arg Gly Asp Val Pro Glu Arg
            100
<210> 1483
<211> 625
<212> DNA
<213> Homo sapiens
<400> 1483
gtacggcttc gagagggcta cagtgtccga gaggtcacac tggccaaagg agggtcccaa
60
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ttggaggtaa agctggtgct gctgtggaaa cacaacatgc gcattgagta tgtggctatg
120
gcatcctggc ccctggagcc tgagggccct cgagtaacac gggtggaagt gacgatggaa
ggeggctacg acattttgca tgatgtgtcc tgtgcactaa ggcagcccat tegttcattg
240
tategtacce atgttatecg gegtttetgg aacacgetge agagcateaa ceagacagae
300
cagatgettg eccacettea greettetee teagtgeetg ageattteae getteetgae
agcaccaaga gcggagtgcc actcttctac atccctccag gctccaccac cccggtgctc
420
tecetecage ecagtggtte tgaeteatee catgeecagt ttgetgeeta etggaageee
agtgctgtcc atggatgcaa attcctggca gcgatggctg cacatgcatc gcctggtgct
aatcctqqaq catqacacac caatccccaa qcacttqcac accccqqqca gcaatqgqcq
ctactacgga gagaagacaa cgcgt
625
<210> 1484
<211> 184
<212> PRT
<213> Homo sapiens
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Val Arg Leu Arg Glu Gly Tyr Ser Val Arg Glu Val Thr Leu Ala Lys
                                    10
Gly Gly Ser Gln Leu Glu Val Lys Leu Val Leu Leu Trp Lys His Asn
Met Arg Ile Glu Tyr Val Ala Met Ala Ser Trp Pro Leu Glu Pro Glu
Gly Pro Arg Val Thr Arg Val Glu Val Thr Met Glu Gly Gly Tyr Asp
Ile Leu His Asp Val Ser Cys Ala Leu Arg Gln Pro Ile Arg Ser Leu
                                        75
                    70
Tyr Arg Thr His Val Ile Arg Arg Phe Trp Asn Thr Leu Gln Ser Ile
                85
                                    90
Asn Gln Thr Asp Gln Met Leu Ala His Leu Gln Ser Phe Ser Ser Val
                                105
Pro Glu His Phe Thr Leu Pro Asp Ser Thr Lys Ser Gly Val Pro Leu
                            120
                                                125
        115
Phe Tyr Ile Pro Pro Gly Ser Thr Thr Pro Val Leu Ser Leu Gln Pro
                        135
Ser Gly Ser Asp Ser Ser His Ala Gln Phe Ala Ala Tyr Trp Lys Pro
                    150
                                        155
Ser Ala Val His Gly Cys Lys Phe Leu Ala Ala Met Ala Ala His Ala
                165
                                    170
                                                        175
Ser Pro Gly Ala Asn Pro Gly Ala
            180
<210> 1485
<211> 2058
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1232

<212> DNA <213> Homo sapiens <400> 1485 ntatgttcag cgttcaacga tattggctac cactatggtg ccatggtcgt cgatgctgcg ctqttcctgc cacagtcacg acccagacta tttatcattg gtgtcagaaa cgatattttt gttggcgata ttacttctga atcaccgtct aaaatgtggc ataccagaac tttattgaat gcctacagca atctgaaaga tgatgccaag tccaattggg tatggtggga ccttcctatg ccagcccaga gaaaatctgc tttcgccgat ttgattgaag aaaatcctag cagcgttaag tggcataccc ggaaggaaac acagcagctc ttggatatga tgactgatgt taacttagct aaggttgagg ctgcaaaaaa gctatcgatc gagtctaagg aaaatgttgt agggacaatt tataaaagaa ctcgcaccga tagctttgga gttaaagcgc agcgtgctga agtgcggttt qatqatqttq ccgqttgtct tcgcacccct ggagggggt caagtcggca agtcataatg 540 gtcgttgata acgggactgt aaaaacgagg ttgatctcaa gtagagaaac tgcaaggctt atggggttac ccgacgaata catattgcca aaaaattata atgaggcgta tcacttaacg qqtqatqqtq ttgtagtgcc ggttgtatcc cacatagcca ctcatatttt tgacccagtg atggagcgtg tgtttgagga tgcggcggga ctgcttaagc aaatcgcata gcatcgtttt ggcaggaaga tatgagcgtt attccgtgta aaaaggacct tcagctaaaa aaattgattg aatcctatgc agaagccttg aaagttgagg cccataagct aggagagcat ggattaactg aagctgaatt ttatgatagc ggcctctttc ggggggctat cgagcgaatt cgaggacagt tctccgcgac catgcgggag aaaagaaatt tcgttaagca tgttttaaat tacatgcagg ataacgacta cattgctgat tgggagtcgg ctggtgaatc gaatcgccat gattatatgg taactotcaa ttotgggogo aaagotgota ttgagotgaa agggtgoott gatggcaata acactaacat ctttgatcgc ccccctcagg cagaagaatt tgttatctgg agtgtatgca caaatcctgg tgctgaccct cagcataatg tttggtctgg gcttcacacc agactaagtg ctgaaatcat ttcacgggag caaaggattg atggaatggt catttgggac tgggcttgtg gaacagtcgg aaggccatgc cccaaaatag caactgaacc tgagcgggct gtaacatttg ggccgttcaa attgccgcca ccatgtttgt atcttttacc ttcgacgatt ccaagcccaa gaaacaaccc gtctccaaga gctcagcaga ttgaagacgt gcagctaatc aaagcgtttc 1500

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acgattgttt tgggtgccgg tctgaagaag ttaatttcgt taactttgat gttggttatc
 atggtaaaga taccgtccgt aaaacgacta tcattcgaaa cggcatggtg gagcgtgaat
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 1680
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 1740
 catgcacctg catgaaaacc gctacataaa gcgggcaggc gtggcgggga tacgagcgcg
 1800
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 1860
 gggtagggtg agtgagaggc agcaataaag aagcgccccg cagaatgctg ctggggcgct
 1920
 gtgagaggtg gtcttgttgt cgcggtgcgg tgggtcagtc gtagcgattg tcttctqtca
 geoccagegt gtacggetca aageggatca ettettegee cagecagtca ttaageteee
2040
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2058
<210> 1486
<211> 256
<212> PRT
<213> Homo sapiens
<400> 1486
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                                     10
Val Asp Ala Ala Leu Phe Leu Pro Gln Ser Arg Pro Arg Leú Phe Ile
                                 25
Ile Gly Val Arg Asn Asp Ile Phe Val Gly Asp Ile Thr Ser Glu Ser
Pro Ser Lys Met Trp His Thr Arg Thr Leu Leu Asn Ala Tyr Ser Asn
Leu Lys Asp Asp Ala Lys Ser Asn Trp Val Trp Trp Asp Leu Pro Met
                                         75
Pro Ala Gln Arg Lys Ser Ala Phe Ala Asp Leu Ile Glu Glu Asn Pro
                                    90
Ser Ser Val Lys Trp His Thr Arg Lys Glu Thr Gln Gln Leu Leu Asp
            100
                                105
Met Met Thr Asp Val Asn Leu Ala Lys Val Glu Ala Ala Lys Lys Leu
        115
                            120
                                                125
Ser Ile Glu Ser Lys Glu Asn Val Val Gly Thr Ile Tyr Lys Arg Thr
                        135
                                            140
Arg Thr Asp Ser Phe Gly Val Lys Ala Gln Arg Ala Glu Val Arg Phe
                    150
                                        155
Asp Asp Val Ala Gly Cys Leu Arg Thr Pro Gly Gly Ser Ser Arg
                                    170
Gln Val Ile Met Val Val Asp Asn Gly Thr Val Lys Thr Arg Leu Ile
           180
                                185
                                                    190
Ser Ser Arg Glu Thr Ala Arg Leu Met Gly Leu Pro Asp Glu Tyr Ile
       195
                            200
                                                205
Leu Pro Lys Asn Tyr Asn Glu Ala Tyr His Leu Thr Gly Asp Gly Val
```

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215
                                            220
    210
Val Val Pro Val Val Ser His Ile Ala Thr His Ile Phe Asp Pro Val
                    230
                                        235
Met Glu Arg Val Phe Glu Asp Ala Ala Gly Leu Leu Lys Gln Ile Ala
                245
                                    250
<210> 1487
<211> 823
<212> DNA
<213> Homo sapiens
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catcagggaa tgctggggaa aaaaagcact ccaggcccag ggatcagcaa agcacaggat
gcctggggga acacacagcc tcagagcatt tgaggaacag aaaaggcaac gtgactaagc
240
ttcctggggc ggtgaggtca ggcagggagg tgggtgcgag gtcatggggc cgcaggcaaa
eggeetece teccagtgee ccacatgeag geeetggage accaggageg gggaggetee
360
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gtgatgacta agtcacagtc cctgcctctg aggcccccat gatgtgccgg gacagccaag
caacccaata tgttaaaatc cagtgtcagg acccnaggag aag
<210> 1488
<211> 149
<212> PRT
<213> Homo sapiens
<400> 1488
Met Leu Gly Arg Ser Cys Glu Gly Lys Phe Arg Lys Asp Leu Ser Glu
                                   . 10
                 5
Gln Val Thr Phe Gln Leu Arg Leu Gly Arg Met Arg Arg Ser Gln Glu
Leu Gln Ala Ser Gly Asn Ala Gly Glu Lys Lys His Ser Arg Pro Arg
                            40
Asp Gln Gln Ser Thr Gly Cys Leu Gly Glu His Thr Ala Ser Glu His
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Leu Arg Asn Arg Lys Gly Asn Val Thr Lys Leu Pro Gly Ala Val Arg
                     70
                                          75
 Ser Gly Arg Glu Val Gly Ala Arg Ser Trp Gly Arg Arg Gln Thr Ala
                 85
                                      90
 Leu Pro Pro Ser Ala Pro His Ala Gly Pro Gly Ala Pro Gly Ala Gly
             100
                                 105
 Arg Leu Arg Gly Val Ser Ser Cys Lys Trp Pro Ala Phe Gly Ser Ile
                             120
 Ser Pro Phe Ser Trp Gly Leu Gly Glu Ala Gly Ser Glu Gly Arg Met
                         135
 Ala Leu Gly Arg Ala
 145
 <210> 1489
 <211> 342
 <212> DNA
 <213> Homo sapiens
 <400> 1489
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gegattgeet gegeegtggg tgeeggeate aaccaggaeg ceategtgeg eggeetegaa
geettegeee eggteggegg aegtttgeag egcaageagg eegceagegg egegeegte
attgacgaca cccacaaccc caatcccaat tcaatgcgcc cggcgatcga cgtgctggcc
cgcgtacccg cgccgcgcat cctggtggtg ggcgacatgg gcgaagtcgg cgcacaggga
aaagaatttc acgaagaaat cggggcttac gcacacacgc gt
342
<210> 1490
<211> 114
<212> PRT
<213> Homo sapiens
<400> 1490
Xaa Gln Phe Thr Val Lys Leu Ala Ala Ala Gly Glu His Asn Val Arg
Asn Ala Leu Ala Ala Ile Ala Cys Ala Val Gly Ala Gly Ile Asn Gln
                                25
Asp Ala Ile Val Arg Gly Leu Glu Ala Phe Ala Pro Val Gly Gly Arg
Leu Gln Arg Lys Gln Ala Ala Ser Gly Ala Pro Val Ile Asp Asp Thr
His Asn Pro Asn Pro Asn Ser Met Arg Pro Ala Ile Asp Val Leu Ala
                    70
                                        75
Arg Val Pro Ala Pro Arg Ile Leu Val Val Gly Asp Met Gly Glu Val
                85
                                    90
Gly Ala Gln Gly Lys Glu Phe His Glu Glu Ile Gly Ala Tyr Ala His
            100
                                105
                                                    110
Thr Arg
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<210> 1491
<211> 333
<212> DNA
<213> Homo sapiens
<400> 1491
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atgggggtag attacctttc ttcccagctc gactgggctg gatatcaggt gtccaccaca
tgggggtcag gtcccactcc caaaggagta gccatcaccc acgagtcggc ggtcaatacg
attgtcgatg tcaacgaacg cctcggggtg actccgaccg accggatatt ggggatttca
gagetaaact tegatetate ggtatacgae atetteggga tgttegegeg gggtgetaee
ttggtgttgc catctccagc agacaaacgt gat
333
<210> 1492
<211> 91
<212> PRT
<213> Homo sapiens
<400> 1492
Met Gly Val Asp Tyr Leu Ser Ser Gln Leu Asp Trp Ala Gly Tyr Gln
                                    10
Val Ser Thr Thr Trp Gly Ser Gly Pro Thr Pro Lys Gly Val Ala Ile
                                25
Thr His Glu Ser Ala Val Asn Thr Ile Val Asp Val Asn Glu Arg Leu
Gly Val Thr Pro Thr Asp Arg Ile Leu Gly Ile Ser Glu Leu Asn Phe
Asp Leu Ser Val Tyr Asp Ile Phe Gly Met Phe Ala Arg Gly Ala Thr
                    70
Leu Val Leu Pro Ser Pro Ala Asp Lys Arg Asp
                85
<210> 1493
<211> 1316
<212> DNA
<213> Homo sapiens
<400> 1493
nggtaccagg gcaaagaagg ctgggccccc gcctcctacc taaagaagaa cagtggggag
cccttgcccc cgaagccagg ccctggctca ccctcccacc cgggtgccct tgacttggat
120
ggtgtttccc ggcagcagaa cgcggtgggc agggagaagg agctgctcag cagccagagg
gacgggcggt ttgaaggccg cccggtgccc gacggtgacg ccaagcagag atcaccaaag
240
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atgaggcaga gaccccctcc tcgccgggac atgaccattc ctcgaggcct caacctgccg
 aageegeeca teeegeeca agtggaggaa gagtattaca ecategeega atteeagaea
 accateceag aeggeateag ettecaggea ggeetgaagg tegaggtgat egagaaaaae
 ttgagtggct ggtggtacat tcagattgaa gataaggaag ggtgggcccc ggccaccttc
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 cacgaggtga cccagctccg gctgggggaa gcagcagcgc tggagaacaa cacgggcagc
 gaagccacgg gcccctcccg gcccctgcct gacgcaccgc atggtgtcat ggactcgggg
660
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atgtctgcgt cagcaggcta cgaggagatc tcagaccccg acatggagga gaagcccagc
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gageggeaga ggaeggagea geteegggge eccaeteeca ageeteeggg egtgattttg
900
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cctgacaaaa gcagactgtt ccagctgaaa aatgacatgg ggctggagtg tggccacaag
1020
gtottggcca aggaagtgaa gaagcccaac ctccqqccca tctccaaatc caaaactqac
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gacatetgea aceteaggag taageteagg cetgeeaagt cecaagacaa gteettgttg
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1316
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<211> 438
<212> PRT
<213> Homo sapiens
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Asn Ser Gly Glu Pro Leu Pro Pro Lys Pro Gly Pro Gly Ser Pro Ser
His Pro Gly Ala Leu Asp Leu Asp Gly Val Ser Arg Gln Gln Asn Ala
Val Gly Arg Glu Lys Glu Leu Leu Ser Ser Gln Arg Asp Gly Arg Phe
                        55
                                            60
Glu Gly Arg Pro Val Pro Asp Gly Asp Ala Lys Gln Arg Ser Pro Lys
65
                    70
                                        75
Met Arg Gln Arg Pro Pro Pro Arg Arg Asp Met Thr Ile Pro Arg Gly
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Leu Asn Leu Pro Lys Pro Pro Ile Pro Pro Gln Val Glu Glu Tyr
          100
                              105
Tyr Thr Ile Ala Glu Phe Gln Thr Thr Ile Pro Asp Gly Ile Ser Phe
                          120
Gln Ala Gly Leu Lys Val Glu Val Ile Glu Lys Asn Leu Ser Gly Trp
                       135
Trp Tyr Ile Gln Ile Glu Asp Lys Glu Gly Trp Ala Pro Ala Thr Phe
                                      155
                  150
Ile Asp Lys Tyr Lys Lys Thr Ser Asn Ala Ser Arg Pro Asn Phe Leu
                                  170
              165
Ala Pro Leu Pro His Glu Val Thr Gln Leu Arg Leu Gly Glu Ala Ala
                              185
Ala Leu Glu Asn Asn Thr Gly Ser Glu Ala Thr Gly Pro Ser Arg Pro
                           200
Leu Pro Asp Ala Pro His Gly Val Met Asp Ser Gly Leu Pro Trp Ser
                                           220
                       215
Lys Asp Trp Lys Gly Ser Lys Asp Val Leu Arg Lys Ala Ser Ser Asp
                   2.30
                                       235
Met Ser Ala Ser Ala Gly Tyr Glu Glu Ile Ser Asp Pro Asp Met Glu
                                   250
               245
Glu Lys Pro Ser Leu Pro Pro Arg Lys Glu Ser Ile Ile Lys Ser Glu
                              265 .
           260
Gly Glu Leu Leu Glu Arg Glu Arg Glu Arg Gln Arg Thr Glu Gln Leu
                          280
Arg Gly Pro Thr Pro Lys Pro Pro Gly Val Ile Leu Pro Met Met Pro
                                          300
                      295
Ala Lys His Ile Pro Pro Ala Arg Asp Ser Arg Arg Pro Glu Pro Lys
                  310
                                      315
Pro Asp Lys Ser Arg Leu Phe Gln Leu Lys Asn Asp Met Gly Leu Glu
              325
                                  330
Cys Gly His Lys Val Leu Ala Lys Glu Val Lys Lys Pro Asn Leu Arg
                              345
Pro Ile Ser Lys Ser Lys Thr Asp Leu Pro Glu Glu Lys Pro Asp Ala
                          360
Thr Pro Gln Asn Pro Phe Leu Lys Ser Arg Pro Gln Val Arg Pro Lys
                      375
Pro Ala Pro Ser Pro Lys Thr Glu Pro Pro Gln Gly Glu Asp Gln Val
                                     395
                  390
Asp Ile Cys Asn Leu Arg Ser Lys Leu Arg Pro Ala Lys Ser Gln Asp
                                  410
Lys Ser Leu Leu Asp Gly Glu Gly Pro Gln Ala Val Gly Gly Gln Asp
                              425
Val Ala Phe Ser Arg Ser
       435
<210> 1495
<211> 329
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<213> Homo sapiens
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 gagggcaggc cgcggacatg gggcatgtgg cgatgtgttt caccacccac tcccgcctga
 180
 agtgccactg tgagcccaac ccacggtgcc aggctgggct gcactccagg ctcctgcagc
 agacccacct cctcagcctc cttcccctga aggctgggca tggcctggac aaagggtgtc
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 ctcctctgct gtgccatgct gacgtggca
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 <211> 105
 <212> PRT
 <213> Homo sapiens
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Met Ala Gln Gln Arg Arg Thr Pro Phe Val Gln Ala Met Pro Ser Leu
                                     10
Gln Gly Lys Glu Ala Glu Glu Val Gly Leu Leu Gln Glu Pro Gly Val
                                 25
Gln Pro Ser Leu Ala Pro Trp Val Gly Leu Thr Val Ala Leu Gln Ala
                             40
Gly Val Gly Glu Thr His Arg His Met Pro His Val Arg Gly Leu
                         55
                                             60
Pro Ser Pro Gly Leu Pro Ala Cys Arg Ser Ala Val Met Gly Ala Ile
                     70
                                         75
Leu Leu Ala Ala Ser Arg Arg Lys Gln Ser Thr Ala Leu Met Glu Asp
Glu Val Ala Pro Leu Arg Asp Arg Asp
            100
                                 105
<210> 1497
<211> 345
<212> DNA
<213> Homo sapiens
<400> 1497
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ccgttgatcg cgcgaatgcg acgggtgggg cagggcgtgc ggccgacacc accgcaagaa
cgcaactcac ggcagatgaa tctgttttga aacgcaagga agggtaatga caggcaccqa
caagaagcgg atcccgcagc tgctgcgtgt tgagctcact gaacttaccg gcccgatcga
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345
<210> 1498
<211> 104
<212> PRT
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<213> Homo sapiens <400> 1498 Met Thr Cys Ile Gly Arg Val Arg Leu Leu Asp Arg Ala Gly Lys Phe Ser Glu Leu Asn Thr Gln Gln Leu Arg Asp Pro Leu Leu Val Gly Ala 25 20 Cys His Tyr Pro Ser Leu Arg Phe Lys Thr Asp Ser Ser Ala Val Ser 45 40 Cys Val Leu Ala Val Val Ser Ala Ala Arg Pro Ala Pro Pro Val Ala 60 Phe Ala Arg Ser Thr Ala Arg Arg Ser His Arg Pro Ser Gly Gln Asp 70 Arg Thr Leu Arg Asp Arg Pro Ala Ser Ser Ala Ala Ala Ala Ser Lys 90 Ser Ala Ala Asn Arg Ala Pro Glu 100 <210> 1499 <211> 402 <212> DNA <213> Homo sapiens <400> 1499 aaatatattc tgccagagtt tgaacacgac accatgctct ggcatttggg catgtcgggg agtttccgtc tatgcgagag caatgaagaa ttacgcaaac atgaccatct aatcattcag tttgaagata tcgaactgcg ttatcatgat cctcgccgtt ttggttgcat tctttggctg gatgcacaat cacaaagcaa attaatagat acgctggggc cagaaccctt aagcgagaac tttaatgcgg agtatttatt tgaaaaattg aagaataaaa aggttggcac caaagttgca attatggata accatgtggt ggtgggcgta ggcaatattt atgcgaccga aagtctgttt aatctgggga ttcatccagc acaaccggcc tcgactttaa gc 402 <210> 1500 <211> 134 <212> PRT <213> Homo sapiens <400> 1500 Lys Tyr Ile Leu Pro Glu Phe Glu His Asp Thr Met Leu Trp His Leu 10 Gly Met Ser Gly Ser Phe Arg Leu Cys Glu Ser Asn Glu Glu Leu Arg 25 Lys His Asp His Leu Ile Ile Gln Phe Glu Asp Ile Glu Leu Arg Tyr 40 His Asp Pro Arg Arg Phe Gly Cys Ile Leu Trp Leu Asp Ala Gln Ser

Gln Ser Lys Leu Ile Asp Thr Leu Gly Pro Glu Pro Leu Ser Glu Asn

55

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70
                                         75
 Phe Asn Ala Glu Tyr Leu Phe Glu Lys Leu Lys Asn Lys Lys Val Gly
                 85
                                     90
 Thr Lys Val Ala Ile Met Asp Asn His Val Val Gly Val Gly Asn
                                 105
                                                     110
 Ile Tyr Ala Thr Glu Ser Leu Phe Asn Leu Gly Ile His Pro Ala Gln
                             120
 Pro Ala Ser Thr Leu Ser
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 <212> DNA
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<400> 1501
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gtgccgagcg cgcgcgagcg cgacttcgtg aagatcttcg acttcggcgc atgccagatg
gtcacaccga aggtatcgaa cggcgtgccc gagctgaaga cgagcgcggg aaatctcttc
ggcacggtgc cgtacatggc gccggagtgc ttcgaggacg gctcgcaccg gctggatgcg
cgcgcggaca tctactccac gggcatcatc atgtaccgct gcgtgacggg gacgctcccc
ttcaaggcga acaccgtctt cgagatgctc atccatctgc gcgagggccg cccatcaagc
360
tt
362
<210> 1502
<211> 120
<212> PRT
<213> Homo sapiens
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Xaa Arg Val His Ala Ala Gly Ile Ile His Arg Asp Leu Lys Pro Gln
1
                                    10
Asn Ile Phe Leu Val Pro Ser Ala Arg Glu Arg Asp Phe Val Lys Ile
                                25
Phe Asp Phe Gly Ala Cys Gln Met Val Thr Pro Lys Val Ser Asn Gly
                            40
Val Pro Glu Leu Lys Thr Ser Ala Gly Asn Leu Phe Gly Thr Val Pro
Tyr Met Ala Pro Glu Cys Phe Glu Asp Gly Ser His Arg Leu Asp Ala
Arg Ala Asp Ile Tyr Ser Thr Gly Ile Ile Met Tyr Arg Cys Val Thr
                85
                                    90
Gly Thr Leu Pro Phe Lys Ala Asn Thr Val Phe Glu Met Leu Ile His
            100
                                105
Leu Arg Glu Gly Arg Pro Ser Ser
        115
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<210> 1503
<211> 623
<212> DNA
<213> Homo sapiens
<400> 1503
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gaccgggtac accgcacctg gttgcgccag gtgtctgagg aggtctgaca gttaccgcaa
gggctcatga cgacccctcc tgaacactgt tcaaagggcg acggcttacc attcctcgct
gtgagtcctg aacagcagct tetegaatat gacegacgte atgtetggca eccetacgce
cegacgateg gggcagacec aatgettgca gtgacggetg ccaacggagt etggetgcag
ctgcatgatg gggaacaccg ccacgaggtc atcgatgcga tggcctcgtg gtggtgccag
atteaeggtt accgaaacce ggteetegae gaggeeetea accgteaaag eteceagtte
agtcacgtca tgtttggcgg actcacccat aaggccgcgg ttgacgccgt catatcccta
gtgegeetgg eeeeggggee eetegacegg atetteetgg etgatteegg gtetgtegge
gtcgaggtga gtctcaaatt ggctcgtcag gtgcaaatcg ctcgcaccgc agcgcgcggc
ggcactttga cgaggacacg cgt
623
<210> 1504
<211> 165
<212> PRT
<213> Homo sapiens
<400> 1504
Met Thr Thr Pro Pro Glu His Cys Ser Lys Gly Asp Gly Leu Pro Phe
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Leu Ala Val Ser Pro Glu Gln Gln Leu Leu Glu Tyr Asp Arg Arg His
Val Trp His Pro Tyr Ala Pro Thr Ile Gly Ala Asp Pro Met Leu Ala
Val Thr Ala Ala Asn Gly Val Trp Leu Gln Leu His Asp Gly Glu His
                         55
Arg His Glu Val Ile Asp Ala Met Ala Ser Trp Trp Cys Gln Ile His
                     70
Gly Tyr Arg Asn Pro Val Leu Asp Glu Ala Leu Asn Arg Gln Ser Ser
                                     90
                 85
Gln Phe Ser His Val Met Phe Gly Gly Leu Thr His Lys Ala Ala Val
                                 105
Asp Ala Val Ile Ser Leu Val Arg Leu Ala Pro Gly Pro Leu Asp Arg
                                                 125
                             120
         115
 Ile Phe Leu Ala Asp Ser Gly Ser Val Gly Val Glu Val Ser Leu Lys
                         135
Leu Ala Arg Gln Val Gln Ile Ala Arg Thr Ala Ala Arg Gly Gly Thr
```

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145
                      150
                                          155
                                                               160
  Leu Thr Arg Thr Arg
                  165
 <210> 1505
 <211> 556
 <212> DNA
 <213> Homo sapiens
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 acgggggccc cgaaactcgc tgacggcact aaaccttctt cccccggcgc aaccaccttg
 getteengea tgaegaaget cagegggga geteageggt tgteagetaa eggeggeaag
 240
 ctcaccgacg gtgtctccca gctctccgga gggctcacaa ccttgtctca caagggccag
 cageteagee aaggggeega tgggetggee ageggggtgg egaeetacae egatggeaeg
 gggaaggtcg tcgacggcat cgggcagctg tcggctggtt tgacgacgat ggatgagaag
 ategetgegg ctacegggaa aategateec teecageteg acaaactege eggtggggee
ggacagettg etgatggeat egaceagtte aceggeaate tggtgggtta tegtactgag
540
atccgccagt acgcgt
556
<210> 1506
<211> 169
<212> PRT
<213> Homo sapiens
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Met Ser Thr Leu Val Ser Ile Gly Leu Pro Asn Arg Trp Pro Gly Trp
 1
Pro Ala Pro Arg Arg Asn Trp Thr Thr Gly Ala Pro Lys Leu Ala Asp
            20
                                 25
Gly Thr Lys Pro Ser Ser Pro Gly Ala Thr Thr Leu Ala Ser Xaa Met
                             40
Thr Lys Leu Ser Gly Gly Ala Gln Arg Leu Ser Ala Asn Gly Gly Lys
Leu Thr Asp Gly Val Ser Gln Leu Ser Gly Gly Leu Thr Thr Leu Ser
                                         75
His Lys Gly Gln Gln Leu Ser Gln Gly Ala Asp Gly Leu Ala Ser Gly
                                    90
Val Ala Thr Tyr Thr Asp Gly Thr Gly Lys Val Val Asp Gly Ile Gly
            100
                               105
Gln Leu Ser Ala Gly Leu Thr Thr Met Asp Glu Lys Ile Ala Ala Ala
        115
                            120
Thr Gly Lys Ile Asp Pro Ser Gln Leu Asp Lys Leu Ala Gly Gly Ala
```

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135
Gly Gln Leu Ala Asp Gly Ile Asp Gln Phe Thr Gly Asn Leu Val Gly
                                        155
                    150
Tyr Arg Thr Glu Ile Arg Gln Tyr Ala
                165
<210> 1507
<211> 667
<212> DNA
<213> Homo sapiens
<400> 1507
agatetetta agatgtgete attateatga gaacagegtg gaggaaacca eccecaggat
ccagttacct ccacttgtcc tgcccttggc acgtggggct tatggggatt acaattcaag
120
gtgagacttg ggtggggaca cagtggaaca tgaagtgtgc cacgctgggt ggatgacgcc
ctcctcccc cgccaccgag agctgcaggc cacatgattc cttttgggta gcactcggga
aagggcagaa tgtacaggaa cagagtgaga ttcgcagggc ctggggctga gggaggggac
gcactagagg aaggcaaagg ggagcctcct gggtgtgggg agcactttct gtcttggttt
tggtggtggc tgcacagtgg cccacacccg tcagagctca cctgcctgca cccaggccct
ccgtgcaccc tggcagccca gatgactgca ccagcccagg ggaggtggag gaatgccaca
cgcaccggta cctggggacc gggggtcctc ggtgatcatc ccgagctcca agacagaagc
tggactacag ccgtgctgag tggaggggtt tggtggctgg gtgcccgcct cctattgctc
ctgcagactc tggggtctcg ggcgccccca gtggggcaat gtgggctgct gcagggaact
cacqcgt
667
<210> 1508
<211> 139
<212> PRT
<213> Homo sapiens
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Met Tyr Arg Asn Arg Val Arg Phe Ala Gly Pro Gly Ala Glu Gly Gly
                                    10
Asp Ala Leu Glu Glu Gly Lys Gly Glu Pro Pro Gly Cys Gly Glu His
                                                    30
Phe Leu Ser Trp Phe Trp Trp Leu His Ser Gly Pro His Pro Ser
                            40
Glu Leu Thr Cys Leu His Pro Gly Pro Pro Cys Thr Leu Ala Ala Gln
                                            60
Met Thr Ala Pro Ala Gln Gly Arg Trp Arg Asn Ala Thr Arg Thr Gly
                                        75
Thr Trp Gly Pro Gly Val Leu Gly Asp His Pro Glu Leu Gln Asp Arg
```

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85
                                     90
 Ser Trp Thr Thr Ala Val Leu Ser Gly Gly Val Trp Trp Leu Gly Ala
                                 105
                                                     110
 Arg Leu Leu Leu Leu Gln Thr Leu Gly Ser Arg Ala Pro Pro Val
                             120
 Gly Gln Cys Gly Leu Leu Gln Gly Thr His Ala
 <210> 1509
 <211> 463
 <212> DNA
 <213> Homo sapiens
 <400> 1509
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ggtctggctg actccaaagt tgtggctttt gttggttttc ttgttctgtc gcgttttaga
aagggctagg aaccgagcac tgggcgttgg gcttactctc ctcctatggt gacctgggag
tggtgcccaa ggcgctctct tcccagcacc tcagggtcct cactggtaaa ggagggagtg
attggaatgt cgccaaagtt acttggctct ggaattctgt ggctattcac gtggactctg
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ctgatttccc aggectetec eteteetgge cetecetect ttettecaet teeceggatt
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463
<210> 1510
<211> 99
<212> PRT
<213> Homo sapiens
<400> 1510
Met Val Thr Trp Glu Trp Cys Pro Arg Arg Ser Leu Pro Ser Thr Ser
Gly Ser Ser Leu Val Lys Glu Gly Val Ile Gly Met Ser Pro Lys Leu
                                25
Leu Gly Ser Gly Ile Leu Trp Leu Phe Thr Trp Thr Leu Asp Gly Gly
His Gln Val Glu Glu Gly Pro Trp Asp Arg Glu Lys Ser Pro Leu Leu
Leu Leu Ile Ser Gln Ala Ser Pro Ser Pro Gly Pro Pro Ser Phe Leu
                                        75
Pro Leu Pro Arg Ile Pro Phe Glu Phe Gly Cys Asn Phe Asn Phe Xaa
                85
                                    90
Phe Arg Phe
<210> 1511
<211> 633
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<212> DNA
<213> Homo sapiens
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tcacgcgcca acgtcaccgg caaccatctg ccggactttt tctggatcga cgccgaagtt
ctggtacgcg aggctctcaa cgaccttgac catgacaagg tagtatccat tcctaccccg
ctctggaagt tcttcatcgc agtggccaca cataccccac gttccgctat gagattcctg
tcacgaactc tgtcctcgtc tcgagacaag gacgaccatc ctcgacacac tccgggaggc
gaggeetgag atggeeageg teaaaceeae taaggaeegg ggeeggtaea eeaatgatet
gtccgccgcg acgcggcagg cagcgaacat gcttctgctg cgtcctttgg tgtggaaagt
cgtcaaagtg agcgtccacg gagccgacaa cctcgacggg ctcgacggtg ccttacgtcg
ccgtcgctaa ccattcctcc cacctcgacg cgccgctcgt ttttggggcc cttcccaagc
ggetgtcaaa gtacctaget accggggeeg etgetgaeta tttetteace gtetggtgga
aggecatege teeggtgete ttetteaacg egt
<210> 1512
<211> 102
<212> PRT
<213> Homo sapiens
<400> 1512
Ala Gly Thr Gly Val Lys Ala Met Ala Leu Gly Pro Gly Trp Val His
Thr Glu Phe His Ser Arg Ala Asn Val Thr Gly Asn His Leu Pro Asp
                                25
Phe Phe Trp Ile Asp Ala Glu Val Leu Val Arg Glu Ala Leu Asn Asp
Leu Asp His Asp Lys Val Val Ser Ile Pro Thr Pro Leu Trp Lys Phe
Phe Ile Ala Val Ala Thr His Thr Pro Arg Ser Ala Met Arg Phe Leu
                                        75
                    70
Ser Arg Thr Leu Ser Ser Ser Arg Asp Lys Asp Asp His Pro Arg His
                                    90
                85
Thr Pro Gly Gly Glu Ala
            100
<210> 1513
<211> 401
<212> DNA
<213> Homo sapiens
<400> 1513
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acgcgtgaag gggtggaatt tcaccacaga ggggacgccg gggttcctgt tcagaaatat
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 120
 gctgtttcgc aggaaccgcc actcccgctc cttgcggatc tgactctcca ggtcgtgctc
 180
 ttctgggatc ttcatgacgg gctgggtaaa atagccgggc gctccagtcg cagaaccccg
 tetgeacegt ggeggagatg aaacttttgt gtecageage ategteegeg tegteegeag
 tetgetetgg gecettgteg aacatettee gtgteegggg gaactggtgg gagtgagggg
tgtactgcgc cccagcgggg cctgtggtgc ccggccggcc g
401
<210> 1514
 <211> 108
<212> PRT
<213> Homo sapiens
<400> 1514
Met Phe Asp Lys Gly Pro Glu Gln Thr Ala Asp Asp Ala Asp Asp Ala
                                     10
Ala Gly His Lys Ser Phe Ile Ser Ala Thr Val Gln Thr Gly Phe Cys
            20
                                 25
Asp Trp Ser Ala Arg Leu Phe Tyr Pro Ala Arg His Glu Asp Pro Arg
                             40
Arg Ala Arg Pro Gly Glu Ser Asp Pro Gln Gly Ala Gly Val Ala Val
Pro Ala Lys Gln Pro Cys Gln Glu Ala Gly Pro Ala Ser His Ser Glu
                                         75
Gly His Tyr Glu Ile Gly Arg Pro Asn Ile Ser Glu Gln Glu Pro Arg
                                     90
Arg Pro Leu Cys Gly Glu Ile Pro Pro Leu His Ala
            100
                                105
<210> 1515
<211> 720
<212> DNA
<213> Homo sapiens
<400> 1515
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agggccatca cggcaggagt cgattatcac ggcccgatta tggaccacac gccggaatcc
aactacgage etgacetgae egacgatgeg aegteggtee egetegeegt egteattgae
gateceggee egectaegee tattgegege egecaegaea teagegaate gggeatetat
gagacccatg tcaaagggct aaccegectt cacceceteg tteetgagca tettegeage
acctatgccg ggcttgccta tccggctgtt atcgaacacc tcaagtcaat cggagtaaca
360
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gccatcqaac tactacccqt ccagcagttc gtctccqaac cattcatcgt tgggcgcggc
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gaageeggea tegaggtttt cetegatgte gtetacaace acaetggtga gggeggeeat
gaaggaccga ctctgtcttt ccgcggcatc gatcacgagt cttattaccg cctcaccaac
gatcaccqca atgactatga cgtcaccggt tgtggcaatt ctgtcgacac ctcccatccg
<210> 1516
<211> 240
<212> PRT
<213> Homo sapiens
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Xaa Asp Pro Asp Arg Gly Met Arg Phe Asn Pro Ala Lys Leu Leu
Asp Pro Tyr Ala Arg Ala Ile Thr Ala Gly Val Asp Tyr His Gly Pro
            20
                                25
Ile Met Asp His Thr Pro Glu Ser Asn Tyr Glu Pro Asp Leu Thr Asp
                            40
Asp Ala Thr Ser Val Pro Leu Ala Val Val Ile Asp Asp Pro Gly Pro
                        55
Pro Thr Pro Ile Ala Arg Arg His Asp Ile Ser Glu Ser Gly Ile Tyr
                                        75
Glu Thr His Val Lys Gly Leu Thr Arg Leu His Pro Leu Val Pro Glu
                                    90
His Leu Arg Ser Thr Tyr Ala Gly Leu Ala Tyr Pro Ala Val Ile Glu
                                105
                                                    110
His Leu Lys Ser Ile Gly Val Thr Ala Ile Glu Leu Leu Pro Val Gln
                            120
Gln Phe Val Ser Glu Pro Phe Ile Val Gly Arg Gly Leu Ser Asp Tyr
                        135
                                            140
Trp Gly Tyr Asn Thr Leu Gly Phe Phe Ala Pro His Ala Ala Tyr Cys
                                        155
                   150
Ser Val Gly Ser Met Gly Thr Gln Val Arg Glu Phe Lys Asp Met Val
                                    170
Thr Ser Phe His Glu Ala Gly Ile Glu Val Phe Leu Asp Val Val Tyr
                                185
Asn His Thr Gly Glu Gly Gly His Glu Gly Pro Thr Leu Ser Phe Arg
                            200
Gly Ile Asp His Glu Ser Tyr Tyr Arg Leu Thr Asn Asp His Arg Asn
                                            220
Asp Tyr Asp Val Thr Gly Cys Gly Asn Ser Val Asp Thr Ser His Pro
                                        235
                                                            240
<210> 1517
<211> 497
<212> DNA
<213> Homo sapiens
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 120
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Val Phe Ile Leu Val Pro Ala Leu Leu Gly Leu Lys Gly Asn Leu Glu
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Met Thr Leu Ala Ser Arg Leu Ser Thr Ala Ala Asn Ile Gly His Met
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Asp Thr Pro Lys Glu Leu Trp Arg Met Ile Thr Gly Asn Met Ala Leu
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                            120
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Tare	7.55	G) v			Ala	Tare	Tla		Trn	wic	There	λla		Cor	T.em
Lys	ASP	_	_	AGT	AIA	шуз		ASII	пр	nıs	1 7 1		тэр	561	200
		275		•	_	_	280		_	_		285			
Thr	Gln	Cys	Ser	His	Pro		Ala	Ile	Asp	Pro		Ala	IIe	Pro	Val
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Phe	Ala	Met	Asn	Glv	Lys	Ser	Phe	Ser	Val	Ile	Leu	Glu	His	Phe	Gln
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No.	T 011	17-1	Dro		Leu	Mat	Ton	wic		The	V-1	Dha	λla		Mor
ASP	Deu	vai			Deu	Mec	Dea		GIY	1111	Val	FILE		Arg	HEC
	_	_	340				_	345			_		350		_
Ala	Pro	Asp	Gln	Lys	Thr	Gln	Leu	Ile	Glu	Ala	Leu	Gln	Asn	Val	Asp
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	C	Dwa	Dho	Th~	Ser	T	Th-	D=0	C - *		60~	Cuc	17-1	Dro	
AIA	ser	PIO	Pne		ser	Lys	ini	PIO		116	ser	Cys	val		ASII
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Leu	Ile	Arg	Glu	Gly	Arg	Ala	Ala	Leu	Ile	Thr	Ser	Phe		Val	Phe
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Leu	Tvr	Ser	Ile	Leu	Ser	Asn	Leu	Glv	Asp	Phe	Gln	Phe	Leu	Phe	Ile
	450					455		1			460				
7		7 1 a	т1 о	T10	Leu		17-1	1701	Dho	The		502	Tan) cn	Dro
_	Leu	Ala	116	116		Val	vai	Val	PHE		Met	361	Deu	You	
465					470			_	_	475	_		_		480
Ala	Trp	Lys	Glu	Leu	Val	Ala	Gln	Arg		Pro	Ser	GIY	Leu		Ser
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Gly	Ala	Leu	Leu	Phe	Ser	Val	Leu	Ser	Gln	Ile	Ile	Ile	Cys	Ile	Gly
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Phe	Gln	Ser	Leu	Glv	Phe	Phe	Trp	Val	Lys	Gln	Gln	Pro	Trp	Tyr	Glu
		515		4			520		•			525	•	•	
W-1	T~~		Dro	Tare	Ser	λen		Cve	λen	Thr	Thr		Ser	Glv	Dhe
Vai	_	птэ	FIO	цуз	361		ATU	Cys	A311	1111	540	O. J	561	O. y	1110
_	530	_	_			535			 1	~3			~1	***	
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Tyr	Leu	Ile			Ile	Ala	Phe			Gly	Lys	Pro			Gln
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Arg Val Ser Asp Gly Thr Leu Val Ala Pro Val Pro Pro Thr Phe Ala
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Leu Glu Asp Ser Leu Leu Gly Lys Met Leu Glu Thr Cys Gly Asp Ala
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Glu Asn Gln Leu Ala Leu Glu Leu Ser Gln His Glu Val Phe Val Glu
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Lys Glu Ile Val Asp Pro Leu Tyr Gly Ile Ala Glu Val Glu Ile Pro
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                85
Asn Ile Gln Lys Gln Arg Lys Gln Leu Ala Arg Leu Val Leu Asp Trp
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            100
Asp Ser Val Arg Ala Arg Trp Asn Gln Ala His Lys Ser Ser Gly Thr
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Asn Phe Gln Gly Leu Pro Ser Lys Ile Asp Thr Leu Lys Glu Gly Met
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                        135
Asp Glu Ala Gly Asn Lys Val Glu Gln Cys Lys Asp Gln Leu Ala Ala
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Asp Met Tyr Asn Phe Met Ala Lys Glu Gly Glu Tyr Gly Lys Phe
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 Tyr Glu Leu Pro Met Ala Gln Met Asn Arg Arg Leu Ser Gly Ile Asp
 Thr Val Phe Leu Leu Thr Asp Glu Lys Tyr Gly Tyr Ile Ser Ser Ser
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 Pro Ser Val Gly Leu Ala Leu Cys Pro Ala Gln Gly Ser Pro Ser Val
 Gly Leu Ala Leu Cys Pro Ala Gln Gly Ser Pro Ser Val Gly Leu Ala
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 Leu Cys Pro Ala Gln Gly Ser Pro Ser Val Gly Phe Ala Leu Cys Leu
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 Ala Pro Ser Thr Gln Pro Pro Ser Pro Ala Gly His Leu
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Gly Met Ala Lys Leu Ala Phe Cys Asp Arg Arg Ala Arg Pro Gly Asn
Asn Arg Ala Ser Ser Gly Gly Leu Arg Ala Arg Leu Arg Leu Arg Ser
Arg His Leu Pro Ser Ala His Gly Gln Val Val Gln Val Gly Ala Asp
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Gln Ser Tyr Arg Cys Ala Gln Leu Arg Leu Phe Thr Gly Phe Gln Arg
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Trp Cys Gly His Gln Gln Pro Asp Ala Arg Ile Leu Ala Pro Pro Ser
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                           120
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His Thr Ala Ile Gln Gly Leu His Asp Ser Gly Thr Asp Asp Asp Arg
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Val His Arg Ala Arg Arg Phe Arg Gln Leu Pro His Gly Asp Gln Thr
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Ile Leu Met His Trp Arg Ser Leu His Thr Arg Ala Ala Asp Met Ala
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Pro Glu
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                                          75
 Thr Thr Phe Ala Pro Thr Ser Met Ser Gln Val Met Thr Asp Pro Thr
                                      90
 Gly Gln Arg Thr Phe Phe His Ser Pro Ala Ala Asn Arg Leu Leu Asp
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 Leu Pro Ala Phe Asp Arg Leu Asp Ala
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 ctegatatet teggeagaca aegecageag aeegggeeta tegeegegge eeatggetge
 aaaaaaactc ttcacagtct ggacattccc ttgtgtgctc atcgaaatct ctccatgtcc
 tttacctggg atcgtgtccg atctcatcgg acgcgttgag gacctgctgg tgaggacggg
gtgtcggtga ttcagccgat atcgactttg catggcgatg tcccagctgc cggagccgtt
360
actggccac
369
<210> 1536
<211> 111
<212> PRT
<213> Homo sapiens
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Met Gln Ser Arg Tyr Arg Leu Asn His Arg His Pro Val Leu Thr Ser
                 5
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Arg Ser Ser Thr Arg Pro Met Arg Ser Asp Thr Ile Pro Gly Lys Gly
                                25
His Gly Glu Ile Ser Met Ser Thr Gln Gly Asn Val Gln Thr Val Lys
                            40
Ser Phe Phe Ala Ala Met Gly Arg Gly Asp Arg Pro Gly Leu Leu Ala
Leu Ser Ala Glu Asp Ile Glu Trp Ile Ile Pro Gly Gln Asp Trp Pro
                    70
Leu Ala Gly Thr His Arg Gly Pro Gln Gly Lèu Ala Asp Leu Leu Gln
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85
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Lys Ala Cys Glu Met Glu Thr Ser Phe Pro Glu Pro Pro Glu Phe
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ggcgtggtgg agacactgac ccaccaggcc cgggcgacca cggtgcatgc cgttcgggac
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Pro Val Arg Val Leu Gly Ala Ala Ala Arg Val Pro Ala Glu Asp Arg
            20
Gln Pro Gly Gly His Leu Leu Val Pro His Ala Pro Arg Gly Asp Gly
                                                 45
                             40
Gly Pro Ala Gly Arg Ala His Arg Gly Asp Leu Val Gly Val Val Glu
                        55
Thr Leu Thr His Gln Ala Arg Ala Thr Thr Val His Ala Val Arg Asp
                                         75
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Ser Glu Leu Ala Lys Leu Pro Ala Gly Ala Leu Thr Ser Ile Lys Arg
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Arg Tyr
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<212> DNA
<213> Homo sapiens
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geetcagtge cetgteacce acctagaace tgttcacage atgtcateeg ggetgetetg
geettgactg gacatgatta tttateetta cacacegtgg etgetetaca ggeeaagaaa
180
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caggetgete agecagggte aggagaaggt gggtcagget ceeeggggae etcaggeeet
 gacgcatcct ggcctcaccc taggcctcct ctgtcggggc agcctggctc agcagagccc
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 gaggagcete agagaceete ecetegaaag caetgggget tecaceteae aageggeagg
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 ctggctgcat cgaatcccac catggcccag agggtggacc tgtggctcct tggggggcca
 720
 gcatececag tetaatgggt geceetgeea eteteetgag tteeegtgea gageteeeee
 780
 caacacctca gccttcacct ttctcagtta atcaaaagat tccaaaaaaa gcaaacccat
 cagaacggct tectecaceg agtgttcagg ataaataate atgtecagte aaggecagag
 900
 cageceggat gacatgetat gaacaggttt taggtgggtg acagggcact gaggeegact
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1015
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<211> 89
<212> PRT
<213> Homo sapiens
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His Pro Arg Gln Ser Ala Ser Val Pro Cys His Pro Pro Arg Thr Cys
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                                                         15
Ser Gln His Val Ile Arg Ala Ala Leu Ala Leu Thr Gly His Asp Tyr
            20
                                25
                                                     30
Leu Ser Leu His Thr Val Ala Ala Leu Gln Ala Lys Lys Gln Ala Ala
                            40
Gln Pro Gly Ser Gly Glu Gly Ser Gly Ser Pro Gly Thr Ser Gly
                        55
Pro Asp Ala Ser Trp Pro His Pro Arg Pro Pro Leu Ser Gly Gln Pro
                                        75
Gly Ser Ala Glu Pro Gly Thr His Gly
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<210> 1541
<211> 1482
<212> DNA
<213> Homo sapiens
<400> 1541
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getategegg egaegggtge eggeggaeee gteeetggee etggaegege tgeeeeegga
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gctgctggtg caggtgctga gccacgtgcc ggccacgctc cttggacacg cgatgccgcc
240
cagtgtgccg cgcctggcgc gacatagtgg acgggcccac tgggaggctg ctgcaactgg
cccgcgaccg cagcgccgag ggccgagcac tctacgcagt ggctcaacgc tgcctgccca
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ccttcggccg caatctcatc ttcaactcct gcggagagca gggcttcaga ggctgggagg
tggagcatgg cgggaacggc tgggccatag aaaagaacct aacaccggtg cctggggctc
cttcgcagac ctgcttcgtg acctctttcg aatggtgctc caagaggcag cttgtggacc
tggtgatgga aggggtgtgg caggagctgc tggacagcgc ccagattgag atctgtgtgg
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cccttgtgac ccactccagt gtgagggtca ggatccgtct gtcctagcga ctggactact
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1020
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1080
ctgaaatttt ctagtatcca cattcataaa gtaaaaagaa aataaaaagg catagaatgt
caagctaacc aggegteege tactteagaa gagtgtactg tegeatgggg agtetgtaac
catgetttte acttecactg catetetege tggetcaaaa caegacaggt gtgtecattg
1260
gacaacagag agtgggaatt ccaaaagtat gggcactagg aaaagacttc ttccatcaag
cttaattgtt ttgttattca tttaatgact ttccctgctg ttacctaatt acaaattgga
tggaactgtg ttttttctg ctttgttttt tcagtttgct gtttctgtag ccatattgta
ttctgtgtca aataaagtcc agttggattc tggaaaaaaa aa
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<210> 1542
<211> 57
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<212> PRT

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<213> Homo sapiens
  <400> 1542
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  Cys Thr Val Ala Trp Gly Val Cys Asn His Ala Phe His Phe His Cys
  Ile Ser Arg Trp Leu Lys Thr Arg Gln Val Cys Pro Leu Asp Asn Arg
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  Glu Trp Glu Phe Gln Lys Tyr Gly His
      50
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  <211> 311
 <212> DNA
 <213> Homo sapiens
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 ccaeggeteg ageegageeg acctegtttg ttttgaacet egageaceca aagaetteag
 ccctgacgag ttcagcaaac gcaccgccgt tttcgcctct tcagatgggg tgtggcccc
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 <210> 1544
 <211> 96
<212> PRT
<213> Homo sapiens
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Met Arg Ser Trp Met Leu Thr Leu Pro Pro Ile Gly Trp Ser Gln Thr
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                                     10
Asp Glu Gln Ala Phe Glu Val Ala Leu Asn Ala Gly Asp Ala Arg Lys
                                 25
Leu Pro Lys Ser Val Pro Arg Leu Met Phe Leu Glu Trp Leu Thr Arg
                             40
Arg Gly Tyr Leu Leu His Gly Ser Ser Arg Ala Asp Leu Val Cys Phe
Glu Pro Arg Ala Pro Lys Asp Phe Ser Pro Asp Glu Phe Ser Lys Arg
Thr Ala Val Phe Ala Ser Ser Asp Gly Val Trp Pro Pro Xaa Xaa Xaa
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<210> 1545
<211> 362
<212> DNA
<213> Homo sapiens
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<400> 1545

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cgtctctgtc tcaagcacct cgcctgtttc caggttcaag gcctggatag tgcgagtgtc
gtactggtcg atcacttcca ccgagtggtc tgggtagccc cttgccattc gctttatgat
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360
ac
362
<210> 1546
<211> 92
<212> PRT
<213> Homo sapiens
<400> 1546
Met Val Lys Ser Cys Glu Leu Ala His Leu Thr Asp Arg Leu Cys Leu
                 5
Lys His Leu Ala Cys Phe Gln Val Gln Gly Leu Asp Ser Ala Ser Val
                                25
Val Leu Val Asp His Phe His Arg Val Val Trp Val Ala Pro Cys His
                             40
Ser Leu Tyr Asp Leu Asn His Arg Cys Ile Trp His Val Pro Glu Leu
                                             60
Val Leu Leu Asn Asp Leu Ser Gly Val Val Glu Asn Leu His Ala Ile
                    70
Val Arg Met Gly His Cys Gly Asp Val Pro Ser Arg
<210> 1547
<211> 429
<212> DNA
<213> Homo sapiens
<400> 1547
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ctgccgcgtt cggtgtggtt cagcgccgtg tcggcgtgga acctggagcg cgagcgcctg
egeaaacteg geetgeegge etggeactgg aagaacgeeg tgeteagtge etggatgtae
agegtggtgt tgtgggggt gatgattgtc tggttgggcg cggcggtgat tccgttcctg
atcattcagg gtgtctacgg gttctcgttg ctggaagtgg tcaactacgt cgagcactac
gggcttaaac gccagaagtt gcccaacggt cgttatgaac ggtgttcgcc tcggcactcg
 360
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tggaacagca accggattgt caccaatatc tttctgttcc aacttcagcg gcattccgac
 420
 caccatqcc
 429
 <210> 1548
 <211> 143
 <212> PRT
 <213> Homo sapiens
 <400> 1548
 Arg Val Ala Thr Pro Glu Asp Pro Ala Ser Ser Arg Leu Gly Glu Ser
                                      10
 Phe Trp Ala Phe Leu Pro Arg Ser Val Trp Phe Ser Ala Val Ser Ala
 Trp Asn Leu Glu Arg Glu Arg Leu Arg Lys Leu Gly Leu Pro Ala Trp
                             40
                                                  45
 His Trp Lys Asn Ala Val Leu Ser Ala Trp Met Tyr Ser Val Val Leu
                         55
 Trp Gly Val Met Ile Val Trp Leu Gly Ala Ala Val Ile Pro Phe Leu
                     70
 Ile Ile Gln Gly Val Tyr Gly Phe Ser Leu Leu Glu Val Val Asn Tyr
                 85
                                     90
Val Glu His Tyr Gly Leu Lys Arg Gln Lys Leu Pro Asn Gly Arg Tyr
             100
                                 105
Glu Arg Cys Ser Pro Arg His Ser Trp Asn Ser Asn Arg Ile Val Thr
                             120
Asn Ile Phe Leu Phe Gln Leu Gln Arg His Ser Asp His His Ala
    130
                         135
<210> 1549
<211> 443
<212> DNA
<213> Homo sapiens
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agaatecetg cactecacea ttettgggea acaetecete taggattttg gtetecettt
tetetetggt etttgaceae egetaceeag caaacteete catetagace agecageatt
ggtttcttcc actccccag ctgccgcgtg ggaggcgcca ctgcaaactt ccctggggtc
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420
ccgacgcggc tgcatggata ttc
443
<210> 1550
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<211> 139
<212> PRT
<213> Homo sapiens
<400> 1550
Met Arg Thr Gly Gln Gly Ala Asp Gln Gly Arg Ala Trp Gly Ser Leu
Ser Ser Trp Glu Thr Pro Gly Lys Phe Ala Val Ala Pro Pro Thr Arg
                                25
Gln Leu Gly Glu Trp Lys Lys Pro Met Leu Ala Gly Leu Asp Gly Gly
Val Cys Trp Val Ala Val Val Lys Asp Gln Arg Glu Lys Gly Asp Gln
                        55
Asn Pro Arg Gly Ser Val Ala Gln Glu Trp Trp Ser Ala Gly Ile Leu
                                        75
                    70
Pro His Leu Pro Ala Asp Arg Pro Gly Cys Gln Ser Cys Met Gly Ala
                                    90
                85
Gly Arg Lys Thr Gln Tyr Pro Trp Ser Gln Arg Gly Lys Thr Thr
                                105
            100
Gly Asn Gly Arg Arg Trp Cys Ala Gln Thr His Val Ala Pro Gln Arg
                            120
Val His Tyr Lys Thr Glu Pro Trp Ser Leu Ser
<210> 1551
<211> 306
<212> DNA
<213> Homo sapiens
<400> 1551
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agaggagcag ccagctggcc aagcacccct gcccctgccc tgcgggctcc acaaaagctg
gaggagcaaa cgcagctcac ctctttttct gtccactgct tcagggccta cccctgtgct
ttggagatgg aacaaaagtg agagagctcc ctgacacacc ctcccagggc gaggatggca
geteetteet ceattiggte ctaacacage eteeccagga gaccagggge atecennnne
300
cccnnc
306
<210> 1552
<211> 101
<212> PRT
<213> Homo sapiens
Met Asp Thr Pro Pro Leu Ala Leu Asn Met Thr Trp Leu Pro His Thr
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Arg Lys Pro Gln Arg Ser Ser Gln Leu Ala Lys His Pro Cys Pro Cys
Pro Ala Gly Ser Thr Lys Ala Gly Gly Ala Asn Ala Ala His Leu Phe
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40

35

```
Phe Cys Pro Leu Leu Gln Gly Leu Pro Leu Cys Phe Gly Asp Gly Thr
 Lys Val Arg Glu Leu Pro Asp Thr Pro Ser Gln Gly Glu Asp Gly Ser
                     70
                                         75
 Ser Phe Leu His Leu Val Leu Thr Gln Pro Pro Gln Glu Thr Arg Gly
                 85
                                     90
 Ile Pro Xaa Pro Xaa
             100
 <210> 1553
 <211> 657
 <212> DNA
 <213> Homo sapiens
<400> 1553
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acgctactca tcctgggggg ccagaccttc atgtgtgaca agatctacca ggtggaccac
120
aaggccaagg agatcatccc caaggccgac ctgcccagcc cccggaagga gttcagcgcc
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geogagtgoo cocagoottg geggtacaca geogetgoog tootgggcag ccagato
<210> 1554
<211> 219
<212> PRT
<213> Homo sapiens
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Ile Leu Gln Asn Asp Gly Val Val Thr Ser Pro Tyr Ser Arg Pro Arg
Lys Ala Gly His Thr Leu Leu Ile Leu Gly Gly Gln Thr Phe Met Cys
                                25
Asp Lys Ile Tyr Gln Val Asp His Lys Ala Lys Glu Ile Ile Pro Lys
                            40
Ala Asp Leu Pro Ser Pro Arg Lys Glu Phe Ser Ala Ser Ala Ile Gly
Cys Lys Val Tyr Val Thr Gly Gly Arg Gly Ser Glu Asn Gly Val Ser
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75

65

70

```
Lys Asp Val Trp Val Tyr Asp Thr Val His Glu Glu Trp Ser Lys Ala
                85
                                    90
Ala Pro Met Leu Ile Ala Arg Phe Gly His Gly Ser Ala Glu Leu Glu
                                105
Asn Cys Leu Tyr Val Val Gly Gly His Thr Ser Leu Ala Gly Val Phe
                            120
Pro Ala Ser Pro Ser Val Ser Leu Lys Gln Val Glu Lys Tyr Asp Pro
                        135
Gly Ala Asn Lys Trp Met Met Val Ala Pro Leu Arg Asp Gly Val Ser
                    150
                                        155
Asn Ala Ala Val Val Ser Ala Lys Leu Lys Leu Phe Val Phe Gly Gly
                                                        175
                165
                                    170
Thr Ser Ile His Arg Asp Met Val Ser Lys Val Gln Cys Tyr Asp Pro
                                185
                                                    190
Ser Glu Asn Arg Trp Thr Ile Lys Ala Glu Cys Pro Gln Pro Trp Arg
                            200
Tyr Thr Ala Ala Ala Val Leu Gly Ser Gln Ile
                        215
    210
<210> 1555
<211> 328
<212> DNA
<213> Homo sapiens
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328
<210> 1556
<211> 102
<212> PRT
<213> Homo sapiens
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Met Leu His Ser Ala Ile Ala Ser Val Ser His Ala His Lys Phe Ala
                                    10
His Leu His Ser Thr His Thr His Ile Ser Arg Ser Thr Ala Leu Ser
                                25
Leu Ser Phe Lys Ser Gln Thr Gly Gly Ser Pro Pro Arg Pro Thr Leu
                            40
        35
Ala Asp Phe Gln Thr Ser Arg Gly Thr Leu Asp His Pro Tyr Arg Ile
                        55
Thr His Val Leu His Pro Leu His Asn Thr Arg Ser Pro Gln Gly Arg
```

```
65
                     70
                                         75
 Leu Leu Gln Asn His Ala His Leu Gln Thr Pro Glu Ala Glu Ser Ser
                85
                                     90
 Leu Pro Ser Ser His Ala
            100
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 <211> 390
 <212> DNA
 <213> Homo sapiens
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gaccatgccg caccatgtgg atcgtctacc gttttggcct tgccgccatt gccttgatcg
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cggagcgcgg cccgttcaaa tgcgacgcgt
<210> 1558
<211> 114
<212> PRT
<213> Homo sapiens
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Met Ala Pro Gly Ser Ser Cys Ala Cys Cys Pro Ser Ser Phe Ala Ser
                 5
                                    10
Gly Ala Pro Ala Trp Pro Ile Ala Gly Thr Gly Thr Arg Thr Ala Gln
            20
                                25
Ser Gly Arg Ser Arg Gln Trp Arg Gln Gly Gln Asn Gly Arg Arg Ser
                            40
Thr Trp Cys Gly Met Val Val Val Leu Leu Ser Ala Tyr Ser Ala
                        55
Cys Arg Pro Asp Thr Ala Lys Asn Arg Leu Ile His Val Asn Phe Leu
                    70
Ser Met Pro Ser Thr Glu Phe Asp Leu Ile Arg Lys Met Arg Glu Ser
Gly Ala Asp Pro Arg Arg Lys Pro Leu Asn Gly Pro Leu Glu Lys Ser
                                105
Val His
<210> 1559
<211> 556
<212> DNA
<213> Homo sapiens
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<400> 1559
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gagtgcaccc ttgacctctt caacgccggg gtagttgagg ccttgcagga tttcggtgcc
gccggaatct cctgtgccac ctccgagctg gccagtgctg gcgacggtgg catgcacgtc
gagetegace gegtteeget gegegaceeg aacetegeee etgaagagat ceteatgage
gagtcccagg agcggatggc cgcggtggtg cgccccgatc agcttgaccg cttcatggag
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aacgacgcta acgcgt
<210> 1560
<211> 185
<212> PRT
<213> Homo sapiens
<400> 1560
Thr Gly Gly Asp Gly Ile Gly Gly Ala Ser Ile Leu Ala Ser Glu Ser
                                    10
Phe Ala Ala Glu Gly Glu Ser Lys Arg Pro Ser Val Gln Val Gly Asp
                                25
Pro Phe Met Glu Lys Leu Leu Ile Glu Cys Thr Leu Asp Leu Phe Asn
                                                45
                          40
Ala Gly Val Val Glu Ala Leu Gln Asp Phe Gly Ala Ala Gly Ile Ser
                        55
Cys Ala Thr Ser Glu Leu Ala Ser Ala Gly Asp Gly Met His Val
                                        75
                    70
Glu Leu Asp Arg Val Pro Leu Arg Asp Pro Asn Leu Ala Pro Glu Glu
                                    90
                85
Ile Leu Met Ser Glu Ser Gln Glu Arg Met Ala Ala Val Val Arg Pro
                                105
            100
Asp Gln Leu Asp Arg Phe Met Glu Ile Cys Ala His Trp Gly Val Ala
                            120
Ala Thr Val Ile Gly Glu Val Thr Asp Thr Gly Arg Leu His Ile Asp
                                            140
                        135
Trp Gln Gly Glu Arg Ile Val Asp Val Asp Pro Arg Thr Val Ala His
                                        155
                    150
Asp Gly Pro Val Leu Asp Met Pro Ala Ala Arg Pro Trp Trp Ile Asp
                                    170
Glu Leu Asn Glu Asn Asp Ala Asn Ala
                                185
            180
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WO 00/58473

PCT/US00/08621

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  <211> 466
  <212> DNA
  <213> Homo sapiens
 <400> 1561
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 ggacacttaa aactctcact tgaaattggg cacaggtttg atgtagagat aaggacgggg
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 ggtaaagttc catgttgttg aactctgact gttctctttg gaattgaacg ttttgcatcc
 420
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Gly Ile Lys Leu Val Val Thr Lys Gln His Ile Gly Asn Leu Lys Gln
                             40
                                                 45
Arg Leu Val Val Pro Ser Asn Ile Tyr Ile Lys Ser Ile Lys Glu Ala
                         55
Phe Glu Tyr His Leu Thr Ala Leu Trp Pro Tyr Arg Ser Asp Glu Ser
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                                         75
Met Thr Lys Trp Val Ser Ile Pro His Pro Val Leu Ile Ser Thr Ser
                85
                                    90
Asn Leu Cys Pro Ile Ser Ser Glu Ser Phe Lys Cys Pro His Phe Leu
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His Glu Thr Pro Ile Phe Ala Glu Met Gln Gln Arg Lys Thr Leu Ala
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Ala Glu Leu Pro Leu Arg Ala Val Leu Arg Asp His Arg Gly Ala Ile
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Val Leu Ser Met Leu Leu Thr Trp Leu Leu Ser Ala Gly Val Val Val
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Val Ile Leu Met Thr Pro Thr Val Leu Gln Thr Val Tyr His Phe Ser
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                    70
Pro Thr Val Ala Leu Gln Ala Asn Ser Leu Ala Ile Val Thr Leu Ser
Leu Gly Cys Ile Ala Ser Gly Ala Leu Ala Asp Arg Phe Gly Ala Gly
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Arg Val Leu Val Thr Gly Trp Arg Cys Cys Trp Pro Leu Pro Gly Arg
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Cys Ile Thr Ala
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180
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atccggtgat tctcgaagtc atcgatgagc agaacaagtt tacccccgag ggagaaaagc
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Ile Lys Arg Thr Arg Glu Pro Ala Phe Gly His Phe Pro Arg Ile
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Thr Ile Lys Val Val Lys Ile Lys Asp Pro Asp Pro Val Ile Leu Glu
Val Ile Asp Glu Gln Asn Lys Phe Thr Pro Glu Gly Glu Lys Arg Val
                         55
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Val Leu Leu Met Leu Asp Asn Leu Tyr Arg Pro Ser Thr His Arg Ala
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Leu Ala Asn Gly Gly Val Pro Tyr Leu Arg Ser Lys Ser Val Thr Val
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cttgacaacc tggggtccct gcagaagtgg cccggctgtc ccccaagtct cctgaagcta
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gagcatgtgt caccagggct caggaaacag catgagtcat gacgcggggg tgtttaaggc
540
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attegtgeca cageggggae eteggageta tgeettgata aggeaagtga ggttacatgt

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Leu Leu Cys Ile Cys Gly Ser Gln His Cys Leu Pro Pro Tyr Pro Asp
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            20
Ser Phe Arg Arg Leu Gly Gly Gln Pro Gly His Phe Cys Arg Asp Pro
                            40
                                                 45
Arg Leu Ser Arg Cys Pro Glu Ser Trp Gly Gly Leu Glu Gly Arg Gly
                                            60
                        55
Pro Ala Ala Glu Ala Val Ser Arg Val Pro Ala Glu Gly Ala Ala Cys
                                        75
                    70
Cys Ser Val Trp Ala Ser Pro Leu Pro Ser Gln Pro Gly Phe Arg Leu
                                    90
Ile Leu Leu Glu Ala Ser Asn Trp Val Pro Gln Glu Cys Ser Gly Phe
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                                                     110
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atccctagtg gcaaggagac ttccatcgag ctggatgtgc accaccctcc tacagtgacc
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 Asp Gly Thr Gln Gln Glu Gly Ala Val Ala Ser Thr Glu Leu Leu Lys
 Asp Gly Lys Arg Glu Thr Thr Val Ser Gln Leu Leu Ile Asn Pro Thr
                         55
                                             60
Asp Leu Asp Ile Gly Arg Val Phe Thr Cys Arg Ser Met Asn Glu Ala
                     70
                                         75
Ile Pro Ser Gly Lys Glu Thr Ser Ile Glu Leu Asp Val His His Pro
                 85
                                     90
Pro Thr Val Thr Leu Ser Ile Glu Pro Gln Thr Val Gln Glu Gly Glu
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Arg Val Val Phe Thr Cys Gln Ala Thr Ala Asn Pro Glu Ile
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                             120
                                                 125
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357
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<212> PRT
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Cys Ala Leu Phe Arg Ser Arg Trp Val Pro Trp Xaa Leu Ile Met Pro
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Gln Met Phe Ile Ile Gly Ile Phe Phe Phe Leu Pro Ser Gly Gln Ala
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Val Leu Gln Ser Phe Gln Met Glu Asp Ala Phe Gly Met Ser Thr Glu
Trp Val Gly Leu Asp Asn Phe Arg Asn Leu Leu Asp Asp Pro Thr Tyr
                        55
Leu Asn Ser Phe Gln Arg Thr Ala Val Phe Ser Val Leu Val Ala Gly
                                        75
Val Gly Ile Ala Val Ser Leu Gly Leu Ala Ile Phe Ala Asp Pro Ile
                                    90
Thr Pro Ser Pro Cys Val Gln Asp Thr Leu Leu Ile Val Pro Tyr Ala
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            100
Val Ala Pro Met Ile Ala Gly
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<210> 1574
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            20
Leu Ala Ile Phe Gly Ile Gly Tyr Asn Thr Arg Trp Lys Glu Asp Ile
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Arg Tyr His Tyr Ala Glu Ile Ser Ser Gln Val Pro Leu Gly Lys Arg
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Leu Arg Glu Tyr Phe Asn Ser Glu Lys Pro Glu Gly Arg Ile Ile Met
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                 85
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Asp Asp Arg Val His Leu Val Ala Glu Ile Gly Ala Asp Gly Val His
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Val Gly Gln Ser Asp Met Pro Val Asp Gln Ala Arg Ala Ile Leu Gly
                            40
                                                 45
Asp Asp Leu Leu Ile Gly Leu Ser Ala Gln Thr Pro Ala His Val Glu
                        55
Ala Ala Leu Ser Gln Gly Arg Asp Ile Val Asp Tyr Leu Gly Val Gly
                    70
                                         75
Ala Leu His Gly Thr Gly Thr Lys Pro Glu Ala Gly Glu Leu Gly Leu
                                    90
Ala Glu Ile Arg Asp Val Val Asn Ala Ser Pro Trp Pro Val Cys Val
            100
                                105
Ile Gly Gly Val Ser Ala Ser Asp Ala Gln Asp Val Ala Arg Val Gly
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                            120
Cys Asp Gly Leu Ser Val Val Ser Ala Ile Cys Arg Ser Thr Asp Pro
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Lys Ser Ser Ala Arg Glu Leu Ala Glu Ala Trp Arg Thr
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                                25
Pro Gly Val Ala His Ala Arg Thr Leu Arg Val Ala Gly Ala Gly Phe
                            40
Pro Ala Arg Gly Gln Arg Ala Ala Gly Asp Leu Val Ile Glu Leu Glu
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Pro Met Leu Pro Gln Ala Pro Asp Lys Gln Leu His Ala Leu Ile Glu
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                                                 45
                            40
Pro Glu Gly Arg Gly Trp Arg Arg Leu Ala Glu Leu Ala Gly Ser Arg
Gly Arg Leu Arg Leu Ser Cys Leu Asp Leu Glu Gln Cys Ser Leu Lys
                    70
Val Leu Glu Pro Glu Gly Ser Pro Ser Leu Cys Leu Leu Lys Leu Met
                                    90
Gly Glu Lys Gly Cys Thr Val Thr Glu Leu Ser Asp Phe Leu Gln Ala
                                 105
            100
Met Glu His Thr Glu Val Leu Gln Leu Leu Ser Pro Pro Gly Ile Lys
                                                 125
                            120
Ile Thr Val Asn Pro Glu Ser Lys Ala Val Leu Ala Gly Gln Phe Val
                                            140
                        135
    130
Lys Leu Cys Cys Arg Ala Thr Gly His Pro Phe Val Gln Tyr Gln Trp
                                        155
                    150
Phe Lys Met Asn Lys Glu Ile Pro Asn Gly Asn Thr Ser Glu Leu Ile
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				16					17					17	5
Phe	≥ Ası	a Al	a Va 18		s Va	l Ly	s Ası	9 Ala 18		y Ph	е Ту	r Va	1 Cys		g Val
Asr	ı Ası	n As 19		e Th	r Pho	e Gl	u Phe 200		r Gl	n Trj) Sei	r Gl: 20:		ı Ası	p Val
Суя	Asp 210		e Pr	o Gl	u Sei	r Pho 21:	e Glı		g Se	r Va	l Asp 220	9 G1	y Val	L Se	r Glu
Ser			u Gl	n Il	e Cys			ı Pro	Th:	r Sei			s Lei	ı Mei	t Pro
225	;				230)				23	5				240
Gly	' Ser	Th	r Le	u Va: 24!		ı Glı	n Cys	Va]	L Ala 250		l Gl	/ Se	r Pro	255	e Pro
His	Tyr	Gl	n Trj 260	p Phe	≥ Lys	Ası	n Gli	Lei 265		Let	Thr	His	3 Glu 270		Lys
Lys	Leu	Ty:		t Val	l Pro	туз	c Ala 280		Lev	ı Glu	His	Glr 285		Thi	Tyr
Trp	Cys 290	Hi	s Val	l Tyı	Asn	Asp 295		Asp	Sei	Glr	Asp 300	Ser		Lys	Val
Glu	Ile	Ile	= Ile	€ Gly	/ Arg	Thr	Asp	Glu	Ala	. Val	Glu	Cys	Thr	Glu	Asp
305					310)				315	;				320
				325	5				330)				335	Asp
GIn	Pro	Lei	1 Ala 340		Asp	Lys	: Val			Leu	Ile	Gly			Asn
Tyr	Arg	Glu 355	ı His		Lys	Leu				Leu	Val				Glu
Leu	Thr			Leu	Arg				Phe	Lys				Leu	Leu
Asp		Thr	Glu	Tyr	Glu	375 Met		Asn	Δla	Val	380		Phe	T.eu	Tan
385				- 3 -	390				71.4	395	rs b	GIU	FILE	Deu	400
Leu	Leu	Asp	Lys	Gly 405	Val	Tyr	Gly	Leu	Leu 410		Туг	Ala	Gly	His 415	Gly
Tyr	Glu	Asn	Phe 420	Gly	Asn	Ser	Phe	Met 425	Val	Pro	Val	Asp	Ala 430	Pro	Asn
Pro	Tyr	Arg 435		Glu	Asn	Cys	Leu 440	Cys	Val	Gln	Asn	Ile 445	Leu	Lys	Leu
Met	Gln 450	Glu	Lys	Glu	Thr	Gly 455	Leu	Asn	Val	Phe	Leu 460	Leu	Asp	Met	Cys
Arg 465	Lys	Arg	Asn	Asp	Tyr 470	Asp	Asp	Thr	Ile	Pro 475	Ile	Leu	Asp	Ala	Leu 480
Lys	Val	Thr	Ala	Asn 485	Ile	Val	Phe	Gly	Tyr 490		Thr	Cys	Gln		Ala
Glu	Ala	Phe				His	Ser	Gly 505		Ala	Asn	Gly	Ile	495 Phe	Met
Lys	Phe	Leu 515		Asp	Arg	Leu	Leu 520		Asp	Lys	Lys		510 Thr	Val	Leu
Leu		-	Val	Ala	Glu	Asp 535		Gly	Lys	Cys		525 Leu	Thr	Lys	Gly
Lys		Ala	Leu	Glu	Ile		Ser	Ser	T.e.11	Ser	540 Glu	Lve	Ara	בומ	Tan
545					550	3				555	JIU	~, °	9	n_a	560
Thr .	Asp	Pro	Ile	Gln		Thr	Glu	Tyr	Ser	Ala	Glu	Ser	Leu	Val	Arg
				565					570					575	
Asn :			580					585					Met 590	Cys	
Lys 1	Phe i	Asp	Cys	Gly	Val	Gln			Leu	Gly	Phe .			Glu	Phe

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600
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Ile Ile Met Cys Asp Ala Tyr Val Thr Asp Phe Pro Leu Asp Leu Asp
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Ile Asp Pro Lys Asp Ala Asn Lys Gly Thr Pro Glu Glu Thr Gly Ser
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Tyr Leu Val Ser Lys Asp Leu Pro Lys His Cys Leu Tyr Thr Arg Leu
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Ser Ser Leu Gln Lys Leu Lys Glu His Leu Val Phe Thr Val Cys Leu
                                                685
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Ser Tyr Gln Tyr Ser Gly Leu Glu Asp Thr Val Glu Asp Lys Gln Glu
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Val Asn Val Gly Lys Pro Leu Ile Ala Lys Leu Asp Met His Arg Gly
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Leu Gly Arg Lys Thr Cys Phe Gln Thr Cys Leu Met Ser Asn Gly Pro
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                                    730
Tyr Gln Ser Ser Ala Ala Thr Ser Gly Gly Ala Gly His Tyr His Ser
                                                    750
                                745
            740
Leu Gln Asp Pro Phe His Gly Val Tyr His Ser His Pro Gly Asn Pro
                            760
Ser Asn Val Thr Pro Ala Asp Ser Cys His Cys Ser Arg Thr Pro Asp
                                            780
                        775
Ala Phe Ile Ser Ser Phe Ala His His Ala Ser Cys His Phe Ser Arg
                   790
                                        795
Ser Asn Val Pro Val Glu Thr Thr Asp Glu Ile Pro Phe Ser Phe Ser
                805
Asp Arg Leu Arg Ile Ser Glu Lys
            820
<210> 1581
<211> 426
<212> DNA
<213> Homo sapiens
<400> 1581
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cgggtgcccg aggtggctga cgcctggctc gattcgggct cgatgccctt cgcccagtgg
ggatacccgc atgtgcccgg ttcgaaggag aagttcgagt cccactaccc gggtgacttc
atctgtgagg ccatcgacca gacccgcggg tggttttaca ccatgatggc cgtcggaacc
ctggtgtttg acgagtcctc gtaccgcaat gtgctgtgtc tgggccacat cttggccgag
gacggtcgca agatgagcaa gcaccttggc aacatcctgt tgcctatccc gctcatggat
teccaeggtg ecgaegeget gegttggtte atggeggeeg aeggeteece atggagtgea
420
cgacgc
426
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<210> 1582

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<211> 142
 <212> PRT
 <213> Homo sapiens
 <400> 1582
 Asp Pro His Arg Pro Phe Ile Asp Glu Val Thr Phe Thr Arg Glu Gly
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 His Thr Tyr His Arg Val Pro Glu Val Ala Asp Ala Trp Leu Asp Ser
 Gly Ser Met Pro Phe Ala Gln Trp Gly Tyr Pro His Val Pro Gly Ser
 Lys Glu Lys Phe Glu Ser His Tyr Pro Gly Asp Phe Ile Cys Glu Ala
 Ile Asp Gln Thr Arg Gly Trp Phe Tyr Thr Met Met Ala Val Gly Thr
                     70
                                         75
 Leu Val Phe Asp Glu Ser Ser Tyr Arg Asn Val Leu Cys Leu Gly His
                 85
                                     90
 Ile Leu Ala Glu Asp Gly Arg Lys Met Ser Lys His Leu Gly Asn Ile
             100
                                 105
                                                     110
Leu Leu Pro Ile Pro Leu Met Asp Ser His Gly Ala Asp Ala Leu Arg
                             120
Trp Phe Met Ala Ala Asp Gly Ser Pro Trp Ser Ala Arg Arg
    130
                         135
<210> 1583
<211> 450
<212> DNA
<213> Homo sapiens
<400> 1583
nnacgcgtga agggttatgg agatggttca gggagtaagg aaggtttcag ggatggttta
gggggttctg aggaaatggg gtcaatggat gaggcaggtt ataggaagga tttgggggct
120
cctaagggaa taggttcagg gagtaaggca ggtttcaggg atggtttagg gagttctggg
gaaatggggt caatggatga ggcagattat aggaaggatt tgggagctcc tgaggaaatg
ggttcaggca gttacacaga ttacaggaat ggtttaggca gttctggaaa aatcagttca
ggggatgagg caggttataa gaatgtttta gggggttctg ggaggaatcc attaqqqaqc
360
gaggcaggtt ctaggggtag tttggaggat tctgggtaca tcttgtcatg gaatgaggca
420
ggttctaggc aaggctttgg gggaactagt
<210> 1584
<211> 150
<212> PRT
<213> Homo sapiens
<400> 1584
Xaa Arg Val Lys Gly Tyr Gly Asp Gly Ser Gly Ser Lys Glu Gly Phe
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10
Arg Asp Gly Leu Gly Gly Ser Glu Glu Met Gly Ser Met Asp Glu Ala
            20
Gly Tyr Arg Lys Asp Leu Gly Ala Pro Lys Gly Ile Gly Ser Gly Ser
                            40
Lys Ala Gly Phe Arg Asp Gly Leu Gly Ser Ser Gly Glu Met Gly Ser
                        55
Met Asp Glu Ala Asp Tyr Arg Lys Asp Leu Gly Ala Pro Glu Glu Met
                    70
Gly Ser Gly Ser Tyr Thr Asp Tyr Arg Asn Gly Leu Gly Ser Ser Gly
                                    90
Lys Ile Ser Ser Gly Asp Glu Ala Gly Tyr Lys Asn Val Leu Gly Gly
                                105
            100
Ser Gly Arg Asn Pro Leu Gly Ser Glu Ala Gly Ser Arg Gly Ser Leu
                            120
                                                 125
Glu Asp Ser Gly Tyr Ile Leu Ser Trp Asn Glu Ala Gly Ser Arg Gln
                                             140
                        135
    130
Gly Phe Gly Gly Thr Ser
                    150
145
<210> 1585
<211> 596
<212> DNA
<213> Homo sapiens
<400> 1585
tgatcatctg taattettgt ccgtgggcgt ttgaactgag aatgtettaa gaagttggga
tetaateega getgetgetg geaaagttgg gtgaggtetg cagagagtge gteeatetgt
ggcagctgca gggcaagctg gggaggaagc gcagggtgtt gcacaggttg catcataatg
gaaggaaaga geggeaggte cagagaaace ggeeteteee aaaaagttat caaacaetgg
tttagaaata cgctttttaa ggaacgacag agaaataaag attcaccata caacttcagt
aaccctccta taacggtttt agaagatatc agaattgatc cacagcccac ctctttagaa
cattacaaat ctgatgcatc attcagtaaa aggtcttcta gaacgagatt tactgactac
cagettaggg ttetgeaaga ettttttgae acaaacgett acceaaaaga tgatgaaata
gaacaactct ccactgttct caatctgcct acccgggtta ttgttgtatg gttccagaat
getegteaga aageaegaaa gagttatgag aateaageag aaaceeette aegegt
596
<210> 1586
 <211> 139
 <212> PRT
 <213> Homo sapiens
 <400> 1586
Met Glu Gly Lys Ser Gly Arg Ser Arg Glu Thr Gly Leu Ser Gln Lys
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1
 Val Ile Lys His Trp Phe Arg Asn Thr Leu Phe Lys Glu Arg Gln Arg
             20
                                 25
 Asn Lys Asp Ser Pro Tyr Asn Phe Ser Asn Pro Pro Ile Thr Val Leu
                             40
 Glu Asp Ile Arg Ile Asp Pro Gln Pro Thr Ser Leu Glu His Tyr Lys
                                              60
 Ser Asp Ala Ser Phe Ser Lys Arg Ser Ser Arg Thr Arg Phe Thr Asp
                     70
                                         75
 Tyr Gln Leu Arg Val Leu Gln Asp Phe Phe Asp Thr Asn Ala Tyr Pro
                                     90
 Lys Asp Asp Glu Ile Glu Gln Leu Ser Thr Val Leu Asn Leu Pro Thr
                                 105
 Arg Val Ile Val Val Trp Phe Gln Asn Ala Arg Gln Lys Ala Arg Lys
         115
                             120
                                                 125
 Ser Tyr Glu Asn Gln Ala Glu Thr Pro Ser Arg
     130
                         135
 <210> 1587
 <211> 501
 <212> DNA
 <213> Homo sapiens
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attctgggtg agatagaaac actgaaaaca gggcggaagt tttttcttct ggcttcttag
tecaeggagg geteagegtg gagaggatat geegtggeat tetecetggg agaccacaca
tgttcccgac agctcagacc ccagaccgca tgtgctcctg acagctcaga ccccagaccg
egegtgetee tgacagetea gaceecagae egeaggtget eeegacaget cagaceecag
accgcgggtg ctcctgacag ctcagacccc agaccgcgcg tgctcccgac agctcagacc
ccagaccgcg ggtgctcctg acagctcaga ccccagaccg cgcgtgctcc cgacagctca
gaccccagac cgcgggtgct cctgacagct cagaccccag accgcgggtg ctcctgacag
ctcagacccc agaccacgcg t
501
<210> 1588
<211> 86
<212> PRT
<213> Homo sapiens
<400> 1588
Ser Thr Glu Gly Ser Ala Trp Arg Gly Tyr Ala Val Ala Phe Ser Leu
                                    10
Gly Asp His Thr Cys Ser Arg Gln Leu Arg Pro Gln Thr Ala Cys Ala
Pro Asp Ser Ser Asp Pro Arg Pro Arg Val Leu Leu Thr Ala Gln Thr
```

```
40
        35
Pro Asp Arg Arg Cys Ser Arg Gln Leu Arg Pro Gln Thr Ala Gly Ala
                        55
Pro Asp Ser Ser Asp Pro Arg Pro Arg Val Leu Pro Thr Ala Gln Thr
                                        75
                    70
Pro Asp Arg Gly Cys Ser
                85
<210> 1589
<211> 407
<212> DNA
<213> Homo sapiens
<400> 1589
aagettgetg gggacaccet ttttacgggg cetegtgggg gaggagttae etgcattgae
tecaceggtt ccactaacge egacatgget getttegtge gageaggggg aacgtettte
tgectacteg ttgetgacea ecaagagge gggegtggae ggtteaegeg eagttggeag
gatgtccccg gtacgagttt ggcgatctca gcgttggtgc ccaatgatcg tccgtcgcag
gactggggct ggctgtcgat ggttgcgggg ctcgctgttg tcaaggtcat caaggaggtc
300
ggtggggctg accgttcccg agtgacgctg aagtggccca atgatgtgct cgtggatctg
gacactgacc agggcggcaa agtgtgcgga attctctcag aacgcgt
407
<210> 1590
<211> 135
<212> PRT
<213> Homo sapiens
<400> 1590
Lys Leu Ala Gly Asp Thr Leu Phe Thr Gly Pro Arg Gly Gly Val
Thr Cys Ile Asp Ser Thr Gly Ser Thr Asn Ala Asp Met Ala Ala Phe
                                 25
Val Arg Ala Gly Gly Thr Ser Phe Cys Leu Leu Val Ala Asp His Gln
                             40
Glu Gly Gly Arg Gly Arg Phe Thr Arg Ser Trp Gln Asp Val Pro Gly
                                             60
                        55
Thr Ser Leu Ala Ile Ser Ala Leu Val Pro Asn Asp Arg Pro Ser Gln
                    70
Asp Trp Gly Trp Leu Ser Met Val Ala Gly Leu Ala Val Val Lys Val
                                     90
                85
Ile Lys Glu Val Gly Gly Ala Asp Arg Ser Arg Val Thr Leu Lys Trp
                                                     110
                                 105
            100
Pro Asn Asp Val Leu Val Asp Leu Asp Thr Asp Gln Gly Gly Lys Val
                                                 125
                            120
        115
Cys Gly Ile Leu Ser Glu Arg
                        135
    130
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<210> 1591
  <211> 424
  <212> DNA
  <213> Homo sapiens
  <400> 1591
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 ttcagagagg cacttgcacc tagaggagtc tctgggaagc agatggggat atgggacaga
 cgcatcttga aaaagccccc agatgcctcc ctatggagga cctcacccac ccacatcacc
 180
 agtagggage ttgggaetta ccctaaccae aggggggtga ctgttgtcgt ccctgcacag
 aacgtccagc gagtcctgac tttccagccg ctgcgcttca tccaggagca cgtcctgatc
 cetgtetttg accteagegg ceceageagt etggeceage etgtecagta etceettgae
 tgtgggatcc ctggctgctc acgcccctga ggacccctcg gatctgctcc agcacgtgaa
 attt
 424
 <210> 1592
 <211> 95
 <212> PRT
 <213> Homo sapiens
 <400> 1592
Met Gly Ile Trp Asp Arg Ile Leu Lys Lys Pro Pro Asp Ala Ser
                  5
                                     10
                                                         15
Leu Trp Arg Thr Ser Pro Thr His Ile Thr Ser Arg Glu Leu Gly Thr
                                 25
Tyr Pro Asn His Arg Gly Val Thr Val Val Val Pro Ala Gln Asn Val
                             40
Gln Arg Val Leu Thr Phe Gln Pro Leu Arg Phe Ile Gln Glu His Val
    50
                                             60
Leu Ile Pro Val Phe Asp Leu Ser Gly Pro Ser Ser Leu Ala Gln Pro
65
                                         75
Val Gln Tyr Ser Leu Asp Cys Gly Ile Pro Gly Cys Ser Arg Pro
                                     90
<210> 1593
<211> 1678
<212> DNA
<213> Homo sapiens
<400> 1593
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atgagaaatg agcccattga aggcaaactc tcactgtata ggcaacaggc atctatcatt
tcccgtaaaa aagaagccaa agctgaggaa cttcaggagg ccaaggagaa gttagccagc
180
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ctagagagag aagcatcagt aaagagaaat cagacccgtg aatttgatgg tactgaagtt
ttaaagggag atgagttcaa acgatatgtc aataaacttc gaagcaagag tacagttttc
aaaaagaagc atcacataat agctgaactt aaagctgaat tcggtctttt gcagaggact
gaagaacttc ttaagcaacg tcatgaaaat attcaacaac aactgcaaac tatggaggag
aaaaagggta tatctggata tagttacacc caagaagagc tagaaagagt atctgcactg
aagagtgaag ttgatgaaat gaaaggacga acattggatg atatgtctga aatggtgaaa
aaactgtatt cattggtatc tgaaaagaag tcagctcttg cctcagttat aaaagagcta
cgacagttgc gtcaaaaata tcaagaactg acccaggagt gtgatgaaaa gaaatcccag
660
tatgatagct gtgcagcagg cctcgaaagc aatcggtcca aattagaaca ggaagttaga
agactccgtg aagaatgtct tcaagaagaa agtagatacc attatacaaa ttgtatgatt
aagaacctag aagttcaact tcgtcgtgct actgatgaga tgaaggcata tatctcttct
gatcaacaag aaaaaagaaa ggcaattagg gaacagtata ccaaaaatac tgctgaacaa
gaaaaccttg gaaagaaact tcgggaaaaa caaaaagtta tacgagaaag tcatggtcca
aatatgaaac aagcaaaaat gtggcgtgat ttggaacaat taatggaatg taagaaacag
tgctttctga aacaacaaag ccaaacttcc attggtcagg taattcagga gggtggggag
gaccggctaa tactgtgaat tcttgtgtca tcgtttgggg ttttacttga taccactagc
1140
tataagoota atotoataat gtatttottt tttgaaactg atttgtttag cattttgttt
1200
tcagaagagc cattctttat taagttttca tagaaaataa tgttaaggta gatttagttt
1260
gaatgttttt tcatatgaaa aagaggcttt tattcttttc catagtttag acatcactgg
1320
cgtcttctga gttttatgag acaggaaact aagtttacta tctgtaaatg taaacatatg
tccattaaga aacatgtagt ttttttttag aatgtaataa cccagtggct tactgtttt
cttaatctct tttaaaaaaa ctttagaaga atcttttagg aactaatatc tcttgttctg
aagaaacatt tatctgacgt tcagcagttc ctacagtttt acttcagttt atttttcttc
1560
tgtaaaatgc aagaaaattt aatattttga ctaacatgtc ttttctgttt gtatcattta
aaggcaaata aacttggtac gtatttcata tctatttaaa aaatgaaaaa aaaaaaaa
1678
<210> 1594
<211> 365
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<212> PRT

<213> Homo sapiens

<400> 1594 Leu Glu Ser Lys Ile Asn Glu Ile Asn Thr Glu Ile Asn Gln Leu Ile Glu Lys Lys Met Met Arg Asn Glu Pro Ile Glu Gly Lys Leu Ser Leu 25 Tyr Arg Gln Gln Ala Ser Ile Ile Ser Arg Lys Lys Glu Ala Lys Ala 40 Glu Glu Leu Gln Glu Ala Lys Glu Lys Leu Ala Ser Leu Glu Arg Glu 55 Ala Ser Val Lys Arg Asn Gln Thr Arg Glu Phe Asp Gly Thr Glu Val 70 75 Leu Lys Gly Asp Glu Phe Lys Arg Tyr Val Asn Lys Leu Arg Ser Lys 85 90 Ser Thr Val Phe Lys Lys His His Ile Ile Ala Glu Leu Lys Ala 105 Glu Phe Gly Leu Leu Gln Arg Thr Glu Glu Leu Leu Lys Gln Arg His 120 Glu Asn Ile Gln Gln Gln Leu Gln Thr Met Glu Glu Lys Lys Gly Ile 135 140 Ser Gly Tyr Ser Tyr Thr Gln Glu Glu Leu Glu Arg Val Ser Ala Leu 155 Lys Ser Glu Val Asp Glu Met Lys Gly Arg Thr Leu Asp Asp Met Ser 170 Glu Met Val Lys Lys Leu Tyr Ser Leu Val Ser Glu Lys Lys Ser Ala 185 180 Leu Ala Ser Val Ile Lys Glu Leu Arg Gln Leu Arg Gln Lys Tyr Gln 200 Glu Leu Thr Gln Glu Cys Asp Glu Lys Lys Ser Gln Tyr Asp Ser Cys 220 Ala Ala Gly Leu Glu Ser Asn Arg Ser Lys Leu Glu Gln Glu Val Arg 230 235 Arg Leu Arg Glu Glu Cys Leu Gln Glu Glu Ser Arg Tyr His Tyr Thr 245 250 Asn Cys Met Ile Lys Asn Leu Glu Val Gln Leu Arg Arg Ala Thr Asp 260 265 Glu Met Lys Ala Tyr Ile Ser Ser Asp Gln Gln Glu Lys Arg Lys Ala 280 Ile Arg Glu Gln Tyr Thr Lys Asn Thr Ala Glu Gln Glu Asn Leu Gly 295 300 Lys Lys Leu Arg Glu Lys Gln Lys Val Ile Arg Glu Ser His Gly Pro 310 315 Asn Met Lys Gln Ala Lys Met Trp Arg Asp Leu Glu Gln Leu Met Glu 330 Cys Lys Lys Gln Cys Phe Leu Lys Gln Gln Ser Gln Thr Ser Ile Gly 345 Gln Val Ile Gln Glu Gly Gly Glu Asp Arg Leu Ile Leu

<210> 1595

<211> 559

<212> DNA

<213> Homo sapiens

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<400> 1595
accegetccce ctcacagec cacacctect tetectcete gegeagegea geetegegeg
geatggeegg ggageegeec acttggegag gaacaggete catagegace teagaacaet
ggtgctgggg cccagccagg gagagcatct tcccgctggg accttccccg gggcggctca
tecettggag atgtagggtg cagetgagat ggtggeggee ceatteetge tgttegeeag
cctgggctgg gggtactagg atcacccttg ggctgatgag gagcccgggt cttgggcagt
taccaagtgg ggggtcacag tctggaaagt ggtggaacca agggagcggc ctcgcccagg
ccacactete aaatactgge cetegacaaa aggeagetgg geteteaaga cagggeeace
tectetetge tgggecegeg ceegtggaga geaagtggga actgaeceta tettetgtee
cagettggag agecageate aaggteagge eteaettgee caagaaagag gagtgaggag
gcccactgga ggaacgcgt
559
<210> 1596
<211> 166
<212> PRT
<213> Homo sapiens
<400> 1596
Met Leu Ala Leu Gln Ala Gly Thr Glu Asp Arg Val Ser Ser His Leu
                                    10
Leu Ser Thr Gly Ala Gly Pro Ala Glu Arg Arg Trp Pro Cys Leu Glu
                                25
            20
Ser Pro Ala Ala Phe Cys Arg Gly Pro Val Phe Glu Ser Val Ala Trp
                            40
        35
Ala Arg Pro Leu Pro Trp Phe His His Phe Pro Asp Cys Asp Pro Pro
                                            60
                        55
Leu Gly Asn Cys Pro Arg Pro Gly Leu Leu Ile Ser Pro Arg Val Ile
                                         75
                    70
Leu Val Pro Pro Ala Gln Ala Gly Glu Gln Glu Trp Gly Arg His
                                    90
                85
His Leu Ser Cys Thr Leu His Leu Gln Gly Met Ser Arg Pro Gly Glu
                                                    110
                                105
            100
Gly Pro Ser Gly Lys Met Leu Ser Leu Ala Gly Pro Gln His Gln Cys
                            120
        115
Ser Glu Val Ala Met Glu Pro Val Pro Arg Gln Val Gly Gly Ser Pro
                                            140
                        135
Ala Met Pro His Gln Ala Ala Leu Pro Gln Glu Glu Lys Gln Val Trp
                                         155
                    150
Ala Cys Glu Arg Asp Arg
                165
<210> 1597
<211> 609
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<212> DNA
  <213> Homo sapiens
  <400> 1597
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 atcaagccga cctacggttc gacctcccga tacggcgtta tcgctatggc ttcatctttg
 gatactectg ggecetgege cegtacegte ettgacgeeg egttgeteca teaggecatt
 gccggtcacg acgctatgga ccagaccacg attaatcagc ccaccccggc ggtcgttgag
 getgegegge aggeagaegt tteeggggtg egeattggeg ttgteaegga gttgageggg
 cagggttacg acceteaggt egaggeeegg ttecaegagg etgtegagat getaatagag
 gcgggggctg aggtcgttga ggtctcttgc ccgaactttg acctcgcctt acctgcttat
 tacettatte ageetgeega ggtgtetage aacetggete gttacgaege catgegttae
 600
 ggcttacgc
 609
 <210> 1598
 <211> 203
<212> PRT
<213> Homo sapiens
 <400> 1598
Ser Ser Thr Glu Thr Ser Ala Phe Gly Pro Thr His Asn Pro Trp Asp
                                     10
Leu Glu Arg Val Pro Gly Gly Ser Gly Gly Ser Ala Ala Ser Leu
            20
                                 25
Ala Ser Phe Gln Ala Pro Leu Ala Leu Gly Thr Asp Thr Gly Gly Ser
                             40
Ile Arg Gln Pro Gly Ala Val Thr Gly Thr Val Gly Ile Lys Pro Thr
                                             60
Tyr Gly Ser Thr Ser Arg Tyr Gly Val Ile Ala Met Ala Ser Ser Leu
                    70
                                         75
Asp Thr Pro Gly Pro Cys Ala Arg Thr Val Leu Asp Ala Ala Leu Leu
His Gln Ala Ile Ala Gly His Asp Ala Met Asp Gln Thr Thr Ile Asn
            100
                                105
Gln Pro Thr Pro Ala Val Val Glu Ala Ala Arg Gln Ala Asp Val Ser
                            120
Gly Val Arg Ile Gly Val Val Thr Glu Leu Ser Gly Gln Gly Tyr Asp
                        135
                                            140
Pro Gln Val Glu Ala Arg Phe His Glu Ala Val Glu Met Leu Ile Glu
145
                    150
                                        155
Ala Gly Ala Glu Val Val Glu Val Ser Cys Pro Asn Phe Asp Leu Ala
```

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170
               165
Leu Pro Ala Tyr Tyr Leu Ile Gln Pro Ala Glu Val Ser Ser Asn Leu
                                185
Ala Arg Tyr Asp Ala Met Arg Tyr Gly Leu Arg
                            200
       195
<210> 1599
<211> 526
<212> DNA
<213> Homo sapiens
<400> 1599
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eggeacetge acgtgtggtt tetetgettt tgttggggag egtgegtege gaeetggatt
agcatgcacg tgaacacgtg gatggccggg atgctctcgg tgacaggtgg ggttgatcca
gcatcgggcg ccggtccggc agtgtattcg gctccctttg ttgaggaatc atgcaaggcg
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gecegtgeag ataactaege cegtgtgaeg gettegggtg gggaeeceaa acaaggegtt
gatgaagttg gtgctgttgc ggggagtgta tgcctcgttt gggcatccgc tgttcaccag
catgacgggt atcggtctgg cccttgggct gaggtcacga agttga
526
<210> 1600
<211> 134
<212> PRT
<213> Homo sapiens
<400> 1600
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                                    10
Val Asp Pro Ala Ser Gly Ala Gly Pro Ala Val Tyr Ser Ala Pro Phe
                                25
Val Glu Glu Ser Cys Lys Ala Leu Val Leu Phe Ala Leu Ala Ile Gly
                            40
Met Gly Arg Arg Met Thr Ser Val Val Gln Thr Val Ser Met Ala Gly
                                            60
Leu Ser Ala Ile Gly Phe Ala Phe Val Glu Asn Ile Met Tyr Tyr Ala
                    70
Arg Ala Asp Asn Tyr Ala Arg Val Thr Ala Ser Gly Gly Asp Pro Lys
                                    90
Gln Gly Val Asp Glu Val Gly Ala Val Ala Gly Ser Val Cys Leu Val
                                                    110
                                105
            100
Trp Ala Ser Ala Val His Gln His Asp Gly Tyr Arg Ser Gly Pro Trp
                                                125
                            120
Ala Glu Val Thr Lys Leu
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130 <210> 1601 <211> 447 <212> DNA <213> Homo sapiens <400> 1601 gccggccgcc ccgtttccgc agattctgga ggagtgccga tggccgagtt catctacacc atgcacaacg tecgaaagge ggtgggtgae aaagttatee ttgacaatgt cacgetgteg ttcttcccgg gcgccaagat tggtgttgtc ggaccgaatg gcgctggcaa atcgacgatg ctcaagctca tggctggtct cgataagccc aataacggcg atgccaactt ggctaaaggc gccaccgtcg gaatcttgct tcaggagccc ccgctcaccg aggacaaaac tgttcgcgag aacgtcgaag aggccgtcgg cgacatcaaa gccaagctgg cacggttcga ggaagtctcc geegagatgg ccaaccetga egeegacttt gaegeeetga tggeggagat gggtgagetg cagaccgage tegataacge caacgeg 447 <210> 1602 <211> 136 <212> PRT <213> Homo sapiens Met Ala Glu Phe Ile Tyr Thr Met His Asn Val Arg Lys Ala Val Gly 10 15 Asp Lys Val Ile Leu Asp Asn Val Thr Leu Ser Phe Phe Pro Gly Ala 20 25 Lys Ile Gly Val Val Gly Pro Asn Gly Ala Gly Lys Ser Thr Met Leu Lys Leu Met Ala Gly Leu Asp Lys Pro Asn Asn Gly Asp Ala Asn Leu 55 Ala Lys Gly Ala Thr Val Gly Ile Leu Leu Gln Glu Pro Pro Leu Thr 65 70 Glu Asp Lys Thr Val Arg Glu Asn Val Glu Glu Ala Val Gly Asp Ile 90 Lys Ala Lys Leu Ala Arg Phe Glu Glu Val Ser Ala Glu Met Ala Asn 105 Pro Asp Ala Asp Phe Asp Ala Leu Met Ala Glu Met Gly Glu Leu Gln 115 120 Thr Glu Leu Asp Asn Ala Asn Ala 130 <210> 1603 <211> 540 <212> DNA <213> Homo sapiens

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<400> 1603
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gaaateettg aggegtaeet caacgaggte ttegteggte aggatggeea gegegeegtg
120
cacgggtttg gcttggccag tcagttcttc tttggccagc ctttgtccga gctgaagttg
catcaagtcg cgttgttggt cgggatggtc aagggcccgt cctattacaa cccgcggcgc
aatccggaac gtgcgctcga gcgtcgtaac ctggtgctgg atgtgctgga acagcagggt
gtagccactg ccgaacaagt cgctgccgca aagaaaatgc cgctgggtgt aaccactcgc
ggcaagetgg cggacagete etteccagge tttategace tggtcaaacg ccagttgcgt
gaagattacc gcgacgaaga cttgaccgaa gaaggcctgc ggattttcac cagtttcgac
cegattetge agatgaaage egaageateg gtgaaegaea catteaageg eetgaeegge
540
<210> 1604
<211> 180
<212> PRT
<213> Homo sapiens
<400> 1604
Thr Arg Lys Leu Thr Glu Ala Met Met Ala Met Leu Leu Glu Leu His
Tyr Ser Lys Gln Glu Ile Leu Glu Ala Tyr Leu Asn Glu Val Phe Val
Gly Gln Asp Gly Gln Arg Ala Val His Gly Phe Gly Leu Ala Ser Gln
Phe Phe Phe Gly Gln Pro Leu Ser Glu Leu Lys Leu His Gln Val Ala
Leu Leu Val Gly Met Val Lys Gly Pro Ser Tyr Tyr Asn Pro Arg Arg
                                        75
                    70
Asn Pro Glu Arg Ala Leu Glu Arg Arg Asn Leu Val Leu Asp Val Leu
                                    90
Glu Gln Gln Gly Val Ala Thr Ala Glu Gln Val Ala Ala Ala Lys Lys
                                105
Met Pro Leu Gly Val Thr Thr Arg Gly Lys Leu Ala Asp Ser Ser Phe
                            120
Pro Gly Phe Ile Asp Leu Val Lys Arg Gln Leu Arg Glu Asp Tyr Arg
                                            140
                        135
Asp Glu Asp Leu Thr Glu Glu Gly Leu Arg Ile Phe Thr Ser Phe Asp
                                        155
                    150
Pro Ile Leu Gln Met Lys Ala Glu Ala Ser Val Asn Asp Thr Phe Lys
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Arg Leu Thr Gly
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<210> 1605
<211> 427
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1295

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 cgcagcgctg gacccaccag cccacctggt cccactcgca cgtgccagta ctqtccgcac
gcaagaaatc gcggtgagct gcgtgcgcct gctgggtgcc gcctgccact acggcaagac
ccagegetae ggegaetgee atgatgaceg aaaggaegeg acceetaata gatgeagtea
tettteteet teacaaagta titggtaatt gteacttage titategete ggaatetgtg
aaccgttaac atcccgacgc ggaagctaac tagcaagcag tctaatgcac tcccgggcca
420
aatgttg
427
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<211> 100
<212> PRT
<213> Homo sapiens
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Met Thr Ala Ser Ile Arg Gly Arg Val Leu Ser Val Ile Met Ala Val
 1
Ala Val Ala Leu Gly Leu Ala Val Val Ala Gly Gly Thr Gln Gln Ala
            20
                                 25
His Ala Ala His Arg Asp Phe Leu Arg Ala Asp Ser Thr Gly Thr Cys
                             40
Glu Trp Asp Gln Val Gly Trp Trp Val Gln Arg Cys Asp Val Trp Ser
Gln Ala Met Gly Arg Asn Ile Pro Val Gln Ile Pro Pro Ala Lys Asn
                    70
Gly Gly Asn Ala Gly Leu Tyr Leu Leu Asp Gly Leu Arg Ala Thr Asp
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Arg Thr Asn Ala
            100
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<211> 396
<212> DNA
<213> Homo sapiens
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tgccgcaagg caatttactt ccacgtcacg gccgatgcga tgaagatgac gattcgtcaa
cggatgggac tgatcccgta cgaggcgatc gtgggcggga cgatgatgat cgtggcgacg
```

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ttgctgtacg gattcatttt gtagcataaa taaggagggg ttcgatgaac aggaaaaccc
240
tttctgttgg cacccgattc gttcaaggaa agcatgacgg caaaagaagt ctgtatcgcg
atggaaaaag gactgagccg cgtctacccc gacgcccggt ttatccatgt gccgatggcg
gacggaggcg aaggcacggt gcagtcgctg gtcgac
396
<210> 1608
<211> 56
<212> PRT
<213> Homo sapiens
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Thr Gly Lys Pro Phe Leu Leu Ala Pro Asp Ser Phe Lys Glu Ser Met
Thr Ala Lys Glu Val Cys Ile Ala Met Glu Lys Gly Leu Ser Arg Val
                                25
            20
Tyr Pro Asp Ala Arg Phe Ile His Val Pro Met Ala Asp Gly Glu
                                                 45
                            40
        35
Gly Thr Val Gln Ser Leu Val Asp
                        55
    50
<210> 1609
<211> 505
<212> DNA
<213> Homo sapiens
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120
geggeeegae tgegtagteg egteatetea gtgeacatet gttetteece geteatgagg
180
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geettgtgga gggcgaggag eegagegege gtgetteetg etggcaegat gegtteaegt
getgegttga tgtegtegat actgatatge aggatgegee eggggtegaa gaeggggaat
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gegegageag ggegaegaea egecaeggaa egeggeatte atggaegagg gaaeggaeat
ggagcgagaa aaagcgggcg tcgac
505
 <210> 1610
 <211> 129
 <212> PRT
 <213> Homo sapiens
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<400> 1610
 Met Pro Arg Ser Val Ala Cys Arg Arg Pro Ala Arg Ala Cys Pro Gln
 Ser Asn Arg Pro Thr Thr Arg Trp Pro Gly Gly Thr Val Gln Phe Thr
                                 25
 Pro Phe Pro Val Phe Asp Pro Gly Arg Ile Leu His Ile Ser Ile Asp
                             40
 Asp Ile Asn Ala Ala Arg Glu Arg Ile Val Pro Ala Gly Ser Thr Arg
                         55
 Ala Arg Leu Leu Ala Leu His Lys Ala Gly Cys Asp Ile Ala Glu Ile
                                         75
 Ala Thr Met Leu Asp Val Thr Met Ser Tyr Ala Ala Asn Leu Met Ser
                                     90
 Gly Glu Glu Gln Met Cys Thr Glu Met Thr Arg Leu Arg Ser Arg Ala
                                 105
 Ala Cys Glu Ala Arg Gly Leu Leu Ser Thr Ala Glu Ser Met Ala Ser
                             120
Met
 <210> 1611
 <211> 532
 <212> DNA
<213> Homo sapiens
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agaatgttcg atggtattga attccgtggt ttttcacaac aagctggtga agatttagcg
aagttetetg gtgtaceggg gtggaatgga ttaacagaeg attggcatee tacacaaatg
ttagctgatt ttatgacaat aaaagagaat tttggatatc tagaaggaat aaacttaact
tacgttggag atggacgtaa taatattgcg cattcattaa tggtagcagg tgctatgtta
ggtgttaatg taagaatttg tacacctaaa tcattaaatc caaaagaggc atatgttgat
attgcaaaag aaaaagcgag tcaatatggt ggttcagtca tgattacgga taatattgca
gaagcagttg aaaatacaga tgctatatat acagatgttt gggtatcgac gg
532
<210> 1612
<211> 177
<212> PRT
<213> Homo sapiens
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Thr Arg Ala Ala Phe Thr Val Ala Ser Ile Asp Leu Gly Ala His Pro
                                    10
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Glu Phe Leu Gly Lys Asn Asp Ile Gln Leu Gly Lys Lys Glu Ser Val

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25
Glu Asp Thr Ala Lys Val Leu Gly Arg Met Phe Asp Gly Ile Glu Phe
                            40
Arg Gly Phe Ser Gln Gln Ala Gly Glu Asp Leu Ala Lys Phe Ser Gly
                        55
Val Pro Gly Trp Asn Gly Leu Thr Asp Asp Trp His Pro Thr Gln Met
                                        75
                    70
Leu Ala Asp Phe Met Thr Ile Lys Glu Asn Phe Gly Tyr Leu Glu Gly
                                    90
                85
Ile Asn Leu Thr Tyr Val Gly Asp Gly Arg Asn Asn Ile Ala His Ser
                                105
Leu Met Val Ala Gly Ala Met Leu Gly Val Asn Val Arg Ile Cys Thr
                                                125
                            120
       115
Pro Lys Ser Leu Asn Pro Lys Glu Ala Tyr Val Asp Ile Ala Lys Glu
                                            140
                        135
Lys Ala Ser Gln Tyr Gly Gly Ser Val Met Ile Thr Asp Asn Ile Ala
                                        155
                    150
Glu Ala Val Glu Asn Thr Asp Ala Ile Tyr Thr Asp Val Trp Val Ser
                                                         175
                                    170
Thr
<210> 1613
<211> 584
<212> DNA
<213> Homo sapiens
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cagggegtee aggttttgeg ceteetggta egttgetaca caettgetea ceteecageg
gtatcaatac aacttgcgaa atgcagacaa ggcccaggcc taagacatgg tagacataca
tatatacaag gaattcacta tatattgggt gaaaggagat cttcccgttc ctgttcttcc
tetgeegeat cetgtgaage gtteagggag gtegacatgg ataatgtgeg tatgeetgge
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gtgggegagg cgatgagttc ctcatttgcg tctttctcga ggtcttggtc catgtccata
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584
<210> 1614
<211> 153
<212> PRT
<213> Homo sapiens
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<400> 1614
 Xaa Arg Val Gln Pro Arg Asn Met Leu Leu Phe Ala Cys His Leu Thr
                                     10
 Asn Ala Thr Ala Gln Gly Val Gln Val Leu Arg Leu Leu Val Arg Cys
 Tyr Thr Leu Ala His Leu Pro Ala Val Ser Ile Gln Leu Ala Lys Cys
 Arg Gln Gly Pro Gly Leu Arg His Gly Arg His Thr Tyr Ile Gln Gly
                         55
                                             60
 Ile His Tyr Ile Leu Gly Glu Arg Arg Ser Ser Arg Ser Cys Ser Ser
                     70
 Ser Ala Ala Ser Cys Glu Ala Phe Arg Glu Val Asp Met Asp Asn Val
                                     90
 Arg Met Pro Gly Thr Val Lys Cys Arg Gly Leu Val Asp Ala Cys Glu
            100
                                 105
Arg Phe Arg Asp Leu Lys Arg Ser Lys Leu Met Cys Ser Arg Glu Leu
        115
                             120
Asp Ala Ala Arg Cys Val Ala Cys Leu Val Val Asp Arg Arg Pro Asp
                         135
                                             140
Pro Ile Glu Cys Gly Val Val Phe Ser
145
                    150
<210> 1615
<211> 363
<212> DNA
<213> Homo sapiens
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geoggettge cogaogogte tatgggtgat gttctgtcct ctgtcgtcgg geogtgggge
teggtgettg teagtgetgg tgtcateatt teeetgettg gggetetaet ggeetggate
ctactgtgcg gtgagacgat gcaggtgccg ggtgaggacg gcaccatqcc qaaactqttc
ggacggatca acaaacatga ggctccagct cccgctttgt ggatcaccaa catcgtctcc
cagatatgcc ttgtcatgac ggtgttgtgg gacggtgctt acttggcgat ggcgaccctg
gctgccgccc tcatcctggt gccgtacctg ctgtcagccg cattcgccct gaagatggtg
360
atc
363
<210> 1616
<211> 121
<212> PRT
<213> Homo sapiens
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Ala Gly Leu Pro Asp Ala Ser Met Gly Asp Val Leu Ser Ser Val Val
                 5
Gly Pro Trp Gly Ser Val Leu Val Ser Ala Gly Val Ile Ile Ser Leu
                                25
Leu Gly Ala Leu Leu Ala Trp Ile Leu Leu Cys Gly Glu Thr Met Gln
```

```
40
        35
Val Pro Gly Glu Asp Gly Thr Met Pro Lys Leu Phe Gly Arg Ile Asn
                        55
Lys His Glu Ala Pro Ala Pro Ala Leu Trp Ile Thr Asn Ile Val Ser
                                        75
Gln Ile Cys Leu Val Met Thr Val Leu Trp Asp Gly Ala Tyr Leu Ala
                                    90
                85
Met Ala Thr Leu Ala Ala Ala Leu Ile Leu Val Pro Tyr Leu Leu Ser
                                105
Ala Ala Phe Ala Leu Lys Met Val Ile
        115
<210> 1617
<211> 447
<212> DNA
<213> Homo sapiens
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gtgcaccgcg ccgtcgagga gaagcacatc ttcggtacca aggagcgctc tgtcatcctg
180
gatgacgaca aagctggcat cgaaaagatt gtcgaccagc agttcgaact ggccgaacag
gtgegegetg egggtettgt geegateete gaaceegagg tegacateea egeteeacat
300
aaggagaagg ctgaggaaag gctgcacaac ctcatccgcg agcacatcga ctctctgccg
ctcgacgcca agatcatgtt gaagctgacg atcccgagtt ccgaagacct gtatgccgac
ctcattgcgg atccgaaggt cctacgc
447
<210> 1618
<211> 149
<212> PRT
<213> Homo sapiens
<400> 1618
Thr Gly Asp Tyr Leu Trp Glu Lys Lys Gly Ile Val Pro Ile Leu Lys
                                    10
Ile Asp Lys Gly Leu Ala Asp Glu Gly Cys His Val Arg Leu Met Lys
            20
Pro Ile Pro Gly Leu Asp Glu Leu Val His Arg Ala Val Glu Glu Lys
                            40
His Ile Phe Gly Thr Lys Glu Arg Ser Val Ile Leu Asp Asp Asp Lys
                        55
Ala Gly Ile Glu Lys Ile Val Asp Gln Gln Phe Glu Leu Ala Glu Gln
                                        75
                    70
Val Arg Ala Ala Gly Leu Val Pro Ile Leu Glu Pro Glu Val Asp Ile
His Ala Pro His Lys Glu Lys Ala Glu Glu Arg Leu His Asn Leu Ile
```

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105
Arg Glu His Ile Asp Ser Leu Pro Leu Asp Ala Lys Ile Met Leu Lys
                            120
Leu Thr Ile Pro Ser Ser Glu Asp Leu Tyr Ala Asp Leu Ile Ala Asp
                        135
Pro Lys Val Leu Arg
145
<210> 1619
<211> 355
<212> DNA
<213> Homo sapiens
<400> 1619
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acaacaaatg gtgcctccat teeegeeett ggeettggea ettteegtat geeeggegaa
gatgtgcttc gcatcgtccc ttacgcgctc aaggctggtt ttcgccatgt cgataccgcg
180
cagatttatg gcaatgaagt cgaggtcggt gaagcaattg cgacttccgg cgttcagcgt
ggcgacatct ttctgaccac aaaagtctgg gtagataatt ataagcatga tgctttcatc
gcatctgtcg atgaaagcct taccaagctt aagaccgact atgtcgatct gctgc
<210> 1620
<211> 118
<212> PRT
<213> Homo sapiens
Xaa Val Pro Lys Pro Val Ser Leu Pro His Lys Ile Lys Gly Thr Ser
                                    10
Met His Asn Val Thr Thr Asn Gly Ala Ser Ile Pro Ala Leu Gly Leu
            20
                                25
Gly Thr Phe Arg Met Pro Gly Glu Asp Val Leu Arg Ile Val Pro Tyr
Ala Leu Lys Ala Gly Phe Arg His Val Asp Thr Ala Gln Ile Tyr Gly
                        55
Asn Glu Val Glu Val Gly Glu Ala Ile Ala Thr Ser Gly Val Gln Arg
65
                    70
Gly Asp Ile Phe Leu Thr Thr Lys Val Trp Val Asp Asn Tyr Lys His
                                    90
Asp Ala Phe Ile Ala Ser Val Asp Glu Ser Leu Thr Lys Leu Lys Thr
            100
                                105
Asp Tyr Val Asp Leu Leu
        115
<210> 1621
<211> 386
<212> DNA
<213> Homo sapiens
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<400> 1621
gegegecatg gaggegeece gggtegegee aggatgetee aggecaagtg aageggteeg
60
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cccccgaggc ggcggtaggc agcgcgctgg ccccaggagc cacggtcaag gcagaaggcg
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tetteategg ttgccagetg egecattegg cettegeege getgeeceae gaeegetteg
ctcgcgacgc ccgcgcgccc ggaagg
<210> 1622
<211> 126
<212> PRT
<213> Homo sapiens
<400> 1622
Met Glu Ala Pro Arg Val Ala Pro Gly Cys Ser Arg Pro Ser Glu Ala
Val Arg Leu Gly Ser Ala Gly Pro Ala Gly His Val Arg Arg His Ile
Gln Arg His Gly Ala Gly Pro Arg Gly Gly Gly Arg Gln Arg Ala Gly
Pro Arg Ser His Gly Gln Gly Arg Arg Phe Ala Ala Gly Ala Gly
    50
His Cys Ala Arg Tyr Glu Gly Arg Arg Gly His Lys Ala Arg Pro Ala
                                        75
                    70 .
His Leu Pro Ala Ala Leu Leu Pro Ala Ala Leu Gly Gly Ala Arg
Arg Pro Leu His Arg Leu Pro Ala Ala Pro Phe Gly Leu Arg Arg Ala
                                105
            100
Ala Pro Arg Pro Leu Arg Ser Arg Arg Pro Arg Ala Arg Lys
        115
<210> 1623
<211> 314
<212> DNA
<213> Homo sapiens
<400> 1623
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120
aacttttccg cagtttcaga ggagagtctg caagtgagag ctgcagtgac tgtgccttgt
gettggcace caageaggge atgggagtet taagtggaae cagggcetca aggacaacag
240
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agagccgcat ggcagggtag acacctggat aaaagtgggt gggggaagcc cactgctgca
 cccgggcat tgct
 314
 <210> 1624
 <211> 103
 <212> PRT
 <213> Homo sapiens
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 Met Pro Gly Val Gln Gln Trp Ala Ser Pro Thr His Phe Tyr Pro Gly
                                     10
 Val Tyr Pro Ala Met Arg Leu Ser Val Val Leu Glu Ala Leu Val Pro
             20
                                 25
 Leu Lys Thr Pro Met Pro Cys Leu Gly Ala Lys His Lys Ala Gln Ser
 Leu Gln Leu Ser Leu Ala Asp Ser Pro Leu Lys Leu Arg Lys Ser Ser
                                             60
Gly Lys Gly Pro Gly Asn Pro Arg Pro Lys Ala Pro Arg Lys Thr Thr
                                         75
Ser Lys Gly Pro Lys Cys Leu Thr Arg Lys Gly Pro Gly Ala Gly Pro
                 85
                                     90
Arg Arg Gly Ser Gly His Gln
            100
<210> 1625
<211> 619
<212> DNA
<213> Homo sapiens
<400> 1625
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gggctgggcc ctccttatcc aagccaatcc agggaaacac tgtgctgact tcaaggcaga
agggacaaga aagcatgact gtgcacaaat tggctttgca gccatctcca ccaggtagcc
ctgggagcac ctgggaagaa gccgggccat gcagggagcc caacctcacc ctgcattcag
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tettteaget tetecaceca eccetgete cagatgtaat etgggaagae tggggagtea
ggggcacagt gagttggagc aggggattgg agggtttgtg ggacagcctt ccagggcacc
480
teaggagetg aattatttaa gecagetgee egtgggeece geteecagee etteetgttt
acacagactc cgtccatage agacacette ccagageetg ggtgacaata ggetgggtgt
600
gttttctgca atcttatag
619
```

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<210> 1626
<211> 106
<212> PRT
<213> Homo sapiens
<400> 1626
Met Asp Gly Val Cys Val Asn Arg Lys Gly Trp Glu Arg Gly Pro Arg
1
Ala Ala Gly Leu Asn Asn Ser Ala Pro Glu Val Pro Trp Lys Ala Val
Pro Gln Thr Leu Gln Ser Pro Ala Pro Thr His Cys Ala Pro Asp Ser
                            40
Pro Val Phe Pro Asp Tyr Ile Trp Ser Arg Gly Trp Val Glu Lys Leu
                        55
Lys Glu Ser Arg Ser Val Phe Ser His Gly Leu Lys Ile Pro Ile Phe
                    70
Phe Pro Glu Ala Arg Arg Lys Val Gly Gly Phe Pro Gly Val Leu Gly
                85
Leu Arg Ser Gly His Ser Lys Ala Arg Phe
            100
<210> 1627
<211> 481
<212> DNA
<213> Homo sapiens
<400> 1627
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cacgaagtct atcgggatcc gctgacagac tccggtaaag ttcccgccat ggcagaacct
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360
ggcacctgca acctgagact tgatgatact aatccaggca ccgaggaaac cgagtatgtc
gagtcgatcg ttgcagacat tgagtggtta ggttactccc cggcccacgt tgtccacgcg
480
t
481
<210> 1628
<211> 104
<212> PRT
<213> Homo sapiens
<400> 1628
Met Ala Glu Pro Thr Gly Asn Pro Ala Glu Ser Ser Ser Asp Phe Ile
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gtgtgtggag 2700	ggagggaggg	aggggagcat	ggtgtctccc	gctccaccgc	cctttgttga
gccccatcag 2760	ctgcccctt	ttactttgca	ttgaacggcc	tgtccaaaga	tectetetet
agggcagcag 2820	agagcttttt	gcactttaaa	aaaaaaaga	aagaaagaaa	ggtcggaatt
tcttttgggt 2880	caatatttt	aagtgtgtga	ggagatgctc	agtagcagca	gcctatggca
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ggccctcttc 3060	ctgtagccca	gtctcaggct	tteetettee	tgaagcccta	cagagttagg
gaatggagcc 3120	caggcaccag	gggtctaaag	tgtgagccac	tgagaagaga	gacgccaact
3180			cagagtggtc		
3240			aagaaactgg		
3300			tttgactgca		
3360			ctccaggccc		
3420			gtgcctcagt		
3480			atcgttaatg		
3540			atactgaaaa		
3600			accccttcag	-	
3660			cagaaatttc		
3720			tttggaaaaa		
3780			aaaaggcagc		
3840			gaaatggttt		
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tcctacaatc 3960	tgctcttaga	cacggccttg	ccaggagagc	ctgccctcag	actgcaggac
cagaacccct 4020	gcctccatct	ttccaagcac	cggggcgaaa	aaccacaaag	gaaaggaaga
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taaaactcct 4140	aaagtcactt	atgtttaaag	ggtttggttg	tgttttttgt	ttttcggaga
aatattgtaa 4200	atatatattt	ttttgttgct	gatttagagt	caatctccaa	tgttgtgcta
aaaagtttaa 4260	attaaatgta	agcattaagg	ggataagtct	tatgctatct	cagttgacac

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attgaggtta ttttgggcca gagaaggagg aagctagttg gactttgttt tgttttccaa
aagttotoca ctattggttt tagagagago aaggacatot ttoototgac acgtgggaat
gggtgatatt tgtgtaataa aatttttaaa agacaaaaaa agaaatagcc tccaatggga
aatattttaa tttaggtttt gtttttgttt gggggttttt gttttttaa aaaaataaaa
aggctttaaa aacaaaaaa
4519
<210> 1630
<211> 496
<212> PRT
<213> Homo sapiens
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Pro Asn Cys Trp Glu Cys Pro Lys Cys Tyr Gln Glu Asp Ser Ser Glu
Lys Ala Gln Lys Arg Lys Met Glu Glu Ser Asp Glu Glu Ala Val Gln
            20
                                25
Ala Lys Val Leu Arg Pro Leu Arg Ser Cys Asp Glu Pro Leu Thr Pro
                            40
Pro Pro His Ser Pro Thr Ser Met Leu Gln Leu Ile His Asp Pro Val
                                            60
Ser Pro Arg Gly Met Val Thr Arg Ser Ser Pro Gly Ala Gly Pro Ser
                    70
                                        75
Asp His His Ser Ala Ser Arg Asp Glu Arg Phe Lys Arg Arg Gln Leu
                                    90
                85
Leu Arg Leu Gln Ala Thr Glu Arg Thr Met Val Arg Glu Lys Glu Asn
           100
                                105
Asn Pro Ser Gly Lys Lys Glu Leu Ser Glu Val Glu Lys Ala Lys Ile
                                                125
                            120
Arg Gly Ser Tyr Leu Thr Val Thr Leu Gln Arg Pro Thr Lys Glu Leu
                                            140
                        135
His Gly Thr Ser Ile Val Pro Lys Leu Gln Ala Ile Thr Ala Ser Ser
                                        155
                    150
Ala Asn Leu Arg His Ser Pro Arg Val Leu Val Gln His Cys Pro Ala
                                    170
                165
Arg Thr Pro Gln Arg Gly Asp Glu Glu Gly Leu Gly Gly Glu Glu Glu
                                                    190
                             . 185
Glu Glu Glu Glu Glu Glu Glu Asp Asp Ser Ala Glu Glu Gly Gly
                                                205
                            200
Ala Ala Arg Leu Asn Gly Arg Gly Ser Trp Ala Gln Asp Gly Asp Glu
                                            220
                        215
Ser Trp Met Gln Arg Glu Val Trp Met Ser Val Phe Arg Tyr Leu Ser
                                        235
Arg Arg Glu Leu Cys Glu Cys Met Arg Val Cys Lys Thr Trp Tyr Lys
                                    250
                245
Trp Cys Cys Asp Lys Arg Leu Trp Thr Lys Ile Asp Leu Ser Arg Cys
                                265
Lys Ala Ile Val Pro Gln Ala Leu Ser Gly Ile Ile Lys Arg Gln Pro
                            280
Val Ser Leu Asp Leu Ser Trp Thr Asn Ile Sèr Lys Lys Gln Leu Thr
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295
Trp Leu Val Asn Arg Leu Pro Gly Leu Lys Asp Leu Leu Leu Ala Gly
                    310
                                        315
Cys Ser Trp Ser Ala Val Ser Ala Leu Ser Thr Ser Ser Cys Pro Leu
                 325
Leu Arg Thr Leu Asp Leu Arg Trp Ala Val Gly Ile Lys Asp Pro Gln
            340
                                 345
                                                     350
Ile Arg Asp Leu Leu Thr Pro Pro Ala Asp Lys Pro Gly Gln Asp Asn
        355
                            360
                                                 365
Arg Ser Lys Leu Arg Asn Met Thr Asp Phe Arg Leu Ala Gly Leu Asp
                        375
Ile Thr Asp Ala Thr Leu Arg Leu Ile Ile Arg His Met Pro Leu Leu
                                        395
                    390
Ser Arg Leu Asp Leu Ser His Cys Ser His Leu Thr Asp Gln Ser Ser
                405
                                     410
Asn Leu Leu Thr Ala Val Gly Ser Ser Thr Arg Tyr Ser Leu Thr Glu
                                425
Leu Asn Met Ala Gly Cys Asn Lys Leu Thr Asp Gln Thr Leu Ile Tyr
                            440
                                                 445
Leu Arg Arg Ile Ala Asn Val Thr Leu Ile Asp Leu Arg Gly Cys Lys
                        455
                                            460
Gln Ile Thr Arg Lys Ala Cys Glu His Phe Ile Ser Asp Leu Ser Ile
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                                        475
Asn Ser Leu Tyr Cys Leu Ser Asp Glu Lys Leu Ile Gln Lys Ile Ser
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                485
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<211> 330
<212> DNA
<213> Homo sapiens
<400> 1631
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teagaaceeg aacacaegtg etteagaeat ggegggatgg aagacaette agactetttt
ccatgttgac tctcgcgacg agcttgttga gttgcttggc ttttcgaaag acgacattac
caaccaagtt cagcaagctg tgggcgcctt gggtttaccg ccactagaag atgaaaacgc
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cttcgatcaa gttccagatg tgcctctaga
330
<210> 1632
<211> 92
<212> PRT
<213> Homo sapiens
<400> 1632
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Lys Thr Leu Gln Thr Leu Phe His Val Asp Ser Arg Asp Glu Leu Val
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25
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Glu Leu Leu Gly Phe Ser Lys Asp Asp Ile Thr Asn Gln Val Gln Gln
                             40
Ala Val Gly Ala Leu Gly Leu Pro Pro Leu Glu Asp Glu Asn Ala Gln
Gly Glu Asp Pro Ala Ser Gln Val Pro Pro Val Thr Asp Glu Asp Pro
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Thr Ala Phe Phe Asp Gln Val Pro Asp Val Pro Leu
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<211> 259
<212> DNA
<213> Homo sapiens
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ggattgttag gtggatttac gacttattcc gccctcacgg tggaaaccgg ccaacgtgtg
atgtcagggc agtggttatg gggtattgcc tatcttttga cgagtgtcgt ggcaggtgca
ttgttggcat gggtcatga
259
<210> 1634
<211> 86
<212> PRT
<213> Homo sapiens
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Xaa Gly Thr Leu Ala Ile Asn Leu Val Gly Ala Phe Val Leu Ala Thr
                                   10
Leu Leu Glu Leu Leu Val His Ala Gly Pro Gly Pro Gly Val Arg Arg
            20
                                25
Ala Val Arg Leu Cys Ile Gly Thr Gly Leu Leu Gly Gly Phe Thr Thr
                            40
                                                 45
Tyr Ser Ala Leu Thr Val Glu Thr Gly Gln Arg Val Met Ser Gly Gln
                        55
Trp Leu Trp Gly Ile Ala Tyr Leu Leu Thr Ser Val Val Ala Gly Ala
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65
                    70
Leu Leu Ala Trp Val Met
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<210> 1635
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<212> DNA
<213> Homo sapiens
<400> 1635
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60
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aagatggegg eteatetgte etaeggeega gtgaacetaa acgtgttgeg egaggeggtg
cgtcgcgagc tgcgcgagtt cctggacaag tgcgcaggaa gcaaggcaat agtttgggat
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gtggaaaaaa tgttcacact taaaggaaat cgtttgccgg cagctgatgt gaagaatata
attttttttg tcagacccag gctagagttg atggatataa tcgctgaaaa cgtgctcagt
gaagatagac gaggcccaac gagagatttt catattctgt ttgtgccacg ccgtagcctg
ttqtqcqaac agcggttgaa ggatctgggt gtcttgggat cctttattca cagggaggag
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ttcaaagagt gctacctgga gggtgaccag acgagcctgt accacgcagc caaggggctg
atgaccetge aagetetgta tggaacgate ceecagatet ttgggaaagg agaatgeget
cgggtgagaa ccggctgctt tgtggtggta aaggagggcc cttcacaccc caaaagggag
gaggaacggg aagctcctta caaacaaatt cagttgatct taattattta tgaatactgt
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actcatgaat tc
792
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<211> 243
<212> PRT
<213> Homo sapiens
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Glu Ala Val Arg Arg Glu Leu Arg Glu Phe Leu Asp Lys Cys Ala Gly
Ser Lys Ala Ile Val Trp Asp Glu Tyr Leu Thr Gly Pro Phe Gly Leu
                            40
Ile Ala Gln Tyr Ser Leu Leu Lys Glu His Glu Val Glu Lys Met Phe
                        55
                                            60
Thr Leu Lys Gly Asn Arg Leu Pro Ala Ala Asp Val Lys Asn Ile Ile
                                        75
                    70
Phe Phe Val Arg Pro Arg Leu Glu Leu Met Asp Ile Ile Ala Glu Asn
                                    90
Val Leu Ser Glu Asp Arg Arg Gly Pro Thr Arg Asp Phe His Ile Leu
            100
                                105
Phe Val Pro Arg Arg Ser Leu Leu Cys Glu Gln Arg Leu Lys Asp Leu
                                                125
                            120
        115
Gly Val Leu Gly Ser Phe Ile His Arg Glu Glu Tyr Ser Leu Asp Leu
                        135
    130
Ile Pro Phe Asp Gly Asp Leu Leu Ser Met Glu Ser Glu Gly Ala Phe
                                        155
                    150
Lys Glu Cys Tyr Leu Glu Gly Asp Gln Thr Ser Leu Tyr His Ala Ala
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165
                                     170
                                                          175
 Lys Gly Leu Met Thr Leu Gln Ala Leu Tyr Gly Thr Ile Pro Gln Ile
             180
                                 185
 Phe Gly Lys Gly Glu Cys Ala Arg Val Arg Thr Gly Cys Phe Val Val
                             200
 Val Lys Glu Gly Pro Ser His Pro Lys Arg Glu Glu Glu Arg Glu Ala
     210
                         215
 Pro Tyr Lys Gln Ile Gln Leu Ile Leu Ile Ile Tyr Glu Tyr Cys Thr
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                     230
                                         235
 His Glu Phe
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 <211> 357
 <212> DNA
 <213> Homo sapiens
<400> 1637
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egeggtgaca getgeggeat ceteggegee teeggtteeg geaagageae eetgeteaat
atcettggcc tgctggacct gcccaacagc ggccagtacc actttgccgg ccacgatatt
ttggcgctca ccccggacga actgtcggcg atccgcaact cagntnnaat ggttgtgttc
cagagettea acetgetgee gegeeteage geeetggaca aegtegeeet geeeetg
357
<210> 1638
<211> 119
<212> PRT
<213> Homo sapiens
<400> 1638
Xaa Met Met Thr Gln Thr Pro Ala His Pro Gly Leu Ile Ser Leu Gln
                                     10
Gly Ile Gly Lys Arg Tyr Gln Leu Ala Gly Gln Lys Leu Ser Ile Leu
            20
                                 25
Asn Asp Val Cys Leu Ser Ile Ser Arg Gly Asp Ser Cys Gly Ile Leu
                            40
                                                 45
Gly Ala Ser Gly Ser Gly Lys Ser Thr Leu Leu Asn Ile Leu Gly Leu
                        55
Leu Asp Leu Pro Asn Ser Gly Gln Tyr His Phe Ala Gly His Asp Ile
                    70
                                        75
Leu Ala Leu Thr Pro Asp Glu Leu Ser Ala Ile Arg Asn Ser Xaa Xaa
                                    90
Met Val Val Phe Gln Ser Phe Asn Leu Leu Pro Arg Leu Ser Ala Leu
            100
                                105
Asp Asn Val Ala Leu Pro Leu
        115
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<211> 396
<212> DNA
<213> Homo sapiens
<400> 1639
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gtttcgcgct ttgcatcaat gaataattta gaggcattta tcgttcttaa tgattctgat
180
attgatccga cattacgtcg tgttatggat gagattgata agaaaccgga actaaaagaa
cgctttgtaa catcggatga ggcttgggat atgatgactt ctaagacgac tgtcgttgtt
gtagatacac ataaacctga aatggtctta gatgaaaatg tcttaaataa agcaaaccgc
aaagtagtca ttgatcatca tagacgtggc gaaact
<210> 1640
<211> 132
<212> PRT
<213> Homo sapiens
<400> 1640
Thr Arg Val Arg Ala Arg Val Ile Ser His Ala Leu Lys Asp Ile Leu
                                    10
Thr Glu Gly Asp Lys Val Ile Val Met Gly His Lys Arg Pro Asp Leu
                                25
            20
Asp Ala Ile Gly Ala Ala Ile Gly Val Ser Arg Phe Ala Ser Met Asn
                            40
Asn Leu Glu Ala Phe Ile Val Leu Asn Asp Ser Asp Ile Asp Pro Thr
                        55
                                             60
Leu Arg Arg Val Met Asp Glu Ile Asp Lys Lys Pro Glu Leu Lys Glu
                                        75
                    70
Arg Phe Val Thr Ser Asp Glu Ala Trp Asp Met Met Thr Ser Lys Thr
                                    90
Thr Val Val Val Asp Thr His Lys Pro Glu Met Val Leu Asp Glu
                                105
Asn Val Leu Asn Lys Ala Asn Arg Lys Val Val Ile Asp His His Arg
                             120
        115
Arg Gly Glu Thr
    130
<210> 1641
<211> 376
<212> DNA
<213> Homo sapiens
<400> 1641
ttatcagcaa acgacagcag acaagagctc ctggggctct ggggaaatgc tgctgcctgc
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tggccaaacg aactgatgga tgggctcttg gagtgggaga gactgggcag aagctgtgtg
 120
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 180
 ttcattgcct ctttccgtct agatgctggc aaggggggac ttggtggaca aagagagcta
 ctattcattc aggagctatg ttacaccagt cactttacat gtgccacttg ctctgggtta
 aactgtgcct cccctcactc atatgttgaa gtcctaaccc taactacctc agaatgggac
 gttatttgga aaaaag
 376
 <210> 1642
 <211> 100
 <212> PRT
 <213> Homo sapiens
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Met Asp Gly Leu Leu Glu Trp Glu Arg Leu Gly Arg Ser Cys Val Gly
                  5
                                     10
                                                         15
Trp Val Thr Pro Asn Leu Lys Asn Pro Leu Arg His Met Trp Leu Pro
             20
                                 25
Ser Ser Thr Phe Ile Ala Ser Phe Arg Leu Asp Ala Gly Lys Gly Gly
                             40
                                                 45
Leu Gly Gly Gln Arg Glu Leu Leu Phe Ile Gln Glu Leu Cys Tyr Thr
                         55
Ser His Phe Thr Cys Ala Thr Cys Ser Gly Leu Asn Cys Ala Ser Pro
                    70
                                         75
His Ser Tyr Val Glu Val Leu Thr Leu Thr Thr Ser Glu Trp Asp Val
                85
                                     90
Ile Trp Lys Lys
            100
<210> 1643
<211> 494
<212> DNA
<213> Homo sapiens
<400> 1643
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gagtgtctga gagcaggtgc aggagaaggt gtgggctcca cctgggcctc tgaagccagg
ggccagaatc cccagatcta ggtccaagag ggggctccat gacctcccca tgctgctcct
Ctgcttggat ccaggatata agaaaggagg ggcacacact gtgggggaac tctggggtcc
cctgtgtgca tcagcgagtc ccgggtctgc cccaccagga tgcaaagggc ctggctgctc
cagccccatg ctcacagccc tataagtgca cgatggcacc ctatatcatc taagcggggc
tgtgcctcct gaggetttag ggacaccaga atgagecece eteggeggag tetggetetg
420
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ggtgtgtgga gatgccacct gggacgggaa ccccaggtgc atggagcccc actgcagaca
ccatcccccg tgtg
494
<210> 1644
<211> 103
<212> PRT
<213> Homo sapiens .
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Met Gly Leu Glu Gln Pro Gly Pro Leu His Pro Gly Gly Ala Asp Pro
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Gly Leu Ala Asp Ala His Arg Gly Pro Gln Ser Ser Pro Thr Val Cys
            20
Ala Pro Pro Phe Leu Tyr Pro Gly Ser Lys Gln Arg Ser Ser Met Gly
                            40
Arg Ser Trp Ser Pro Leu Leu Asp Leu Asp Leu Gly Ile Leu Ala Pro
                                             60
                        55
Gly Phe Arg Gly Pro Gly Gly Ala His Thr Phe Ser Cys Thr Cys Ser
                                        75
                    70
Gln Thr Leu Gly Ser Thr Ser Leu Arg Tyr Gln Lys Gly Ser Trp Val
                                    90
                                                         95
                85
Pro Met Glu Phe Trp Lys Leu
            100
<210> 1645
<211> 330
<212> DNA
<213> Homo sapiens
<400> 1645
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accetggacg atgtectgea teggatagee cagetaatge aggatgaega etgteetttg
cagtcactat ccgtggctga gtcgcggttg aagcagggtg ccagcatcct gatccgggct
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ggggccaaga tgctagccaa ggctctacgc
330
<210> 1646
<211> 110
<212> PRT
<213> Homo sapiens
<400> 1646
Xaa Asp Leu Ser Asp Asn Gly Phe Gly Ser Asp Met Val Thr Leu Val
                                    10
Leu Ala Ile Gly Arg Ser Arg Ser Leu Lys His Val Ala Leu Gly Arg
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20
                                  25
 Asn Phe Asn Val Arg Cys Lys Glu Thr Leu Asp Asp Val Leu His Arg
                              40
 Ile Ala Gln Leu Met Gln Asp Asp Cys Pro Leu Gln Ser Leu Ser
 Val Ala Glu Ser Arg Leu Lys Gln Gly Ala Ser Ile Leu Ile Arg Ala
 Leu Gly Thr Asn Pro Lys Leu Thr Ala Leu Asp Ile Ser Gly Asn Ala
 Ile Gly Asp Ala Gly Ala Lys Met Leu Ala Lys Ala Leu Arg
                                  105
 <210> 1647
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 <212> DNA
 <213> Homo sapiens
 <400> 1647
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 cgcgactgcg cagggcgggg ccggccgaac catgggccgc ggtgtgggct aagctggtgg
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gggacctgca agtgcggtct ggagtgtcca cttaatgtcc ccaaggtttt caactttgac
cctttggccc cggtgacccc q
501
<210> 1648
<211> 84
<212> PRT
<213> Homo sapiens
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Met Asn Gly Gly Asn Glu Ser Ser Gly Ala Asp Arg Ala Gly Gly Pro
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Val Ala Thr Ser Val Pro Ile Gly Trp Gln Arg Cys Val Arg Glu Gly
                                25
Ala Val Leu Tyr Ile Ser Pro Ser Gly Thr Glu Leu Ser Ser Leu Glu
                            40
Gln Thr Arg Ser Tyr Leu Leu Ser Asp Gly Thr Cys Lys Cys Gly Leu
                        55
Glu Cys Pro Leu Asn Val Pro Lys Val Phe Asn Phe Asp Pro Leu Ala
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                                        75
Pro Val Thr Pro
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<211> 441
<212> DNA
<213> Homo sapiens
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120
gaagacttcc acgggatgga agaatgcatc gatcagatcg tttcgtattt ccgccacgcc
180
geccaaggee tggaagagaa gaaacagate etttacetge teggeecegt eggeggeggt
aaatcgtccc tggccgaaaa gctgaaacag ctgatcgaga aggtcccctt ctacgccatc
aagggctcgc cggtcttcga gtcgcccctg gggttgttca acgccactga agacggcgcg
atectegagg aagaettegg gattecaegg egttaeetga acaceateat gtegeeetgg
gcgaccaagc gcctggccga a
441
<210> 1650
<211> 147
<212> PRT
<213> Homo sapiens
<400> 1650
Ala Ser Ala Ala Glu Arg Val Leu Leu Ala Ile Gly Glu Pro Glu Leu
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Leu Asp Thr Ser Thr Asn Ser Arg Leu Ser Arg Ile Phe Ser Asn Lys
                                 25
             20
Val Ile Arg Arg Tyr Pro Ala Phe Glu Asp Phe His Gly Met Glu Glu
                             40
        35
Cys Ile Asp Gln Ile Val Ser Tyr Phe Arg His Ala Ala Gln Gly Leu
                                             60
Glu Glu Lys Lys Gln Ile Leu Tyr Leu Leu Gly Pro Val Gly Gly
                                         75
                     70
 65
Lys Ser Ser Leu Ala Glu Lys Leu Lys Gln Leu Ile Glu Lys Val Pro
                                     90
                 85
Phe Tyr Ala Ile Lys Gly Ser Pro Val Phe Glu Ser Pro Leu Gly Leu
                                 105
             100
Phe Asn Ala Thr Glu Asp Gly Ala Ile Leu Glu Glu Asp Phe Gly Ile
                             120
 Pro Arg Arg Tyr Leu Asn Thr Ile Met Ser Pro Trp Ala Thr Lys Arg
                        135
     130
 Leu Ala Glu
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 <210> 1651
 <211> 408
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<212> DNA
<213> Homo sapiens
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gtacactece tegeattege gttgetgege acageggeeg aggaggaget gegeettatt
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<210> 1652
<211> 136
<212> PRT
<213> Homo sapiens
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Xaa Ala Asp Pro Ser Gly Ile Leu Val Ile Ala Pro Ser Lys Glu Ser
Gly Ala Arg Leu Arg Arg Glu Leu Ser Glu Arg Leu Glu Asp Tyr Ala
Ala Gln Thr Ser Met Val Arg Ser Val His Ser Leu Ala Phe Ala Leu
                            40
Leu Arg Thr Ala Ala Glu Glu Leu Arg Leu Ile Thr Gly Ala Asp
                                            60
                        55
Xaa Asp Ala Val Ile Arg Glu Leu Leu Thr Gly Gln Ala Glu Asp Gly
                                        75
His Gly Ser Trp Pro Ala Glu Met Arg Pro Ala Trp Asn Xaa Cys Gly
                                    90
Leu Ser Arg Gln Leu Arg Asp Phe Leu Leu Arg Ser Ile Glu Arg Gly
                                105
Leu Gly Pro Gly Asp Leu Glu Ser Leu Gly Ala Glu His Gly Arg Pro
                            120
Met Trp Ser Ala Ala Gly Glu Phe
    130
<210> 1653
<211> 398
<212> DNA
<213> Homo sapiens
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tcaccegege acatggecat egetecaceg gacgagttga gtgacaagat ceggtgeatt
120
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ctgcgcaccc ttgaacctgg tgacagtgtg aaggagattc tcaacacgtc gcgtgtcgtc
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gattacttcc agcgtccgaa cggtgaaatc gtcaatgtct gggaagctcc gccacacgag
cgcgatgcct tgatcgtggc ggccggtgtc gcacaggtgg cacaaagcag cacacccgtg
cagatatggc gctgggaaca gctccgactt tgtctaga
398
<210> 1654
<211> 132
<212> PRT
<213> Homo sapiens
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Pro Ala Ser Leu Arg Pro Arg Pro Ser Ser Gly His Thr Ala Pro Asn
1
Val Ala Ser Pro Ser Pro Ala His Met Ala Ile Ala Pro Pro Asp Glu
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Leu Ser Asp Lys Ile Arg Cys Ile Leu Arg Thr Leu Glu Pro Gly Asp
                            40
Ser Val Lys Glu Ile Leu Asn Thr Ser Arg Val Val Gly Ile Asp Val
                        55
Gln Ser Ser Leu Leu Ile Ala Gly Ala Gln His Leu Tyr Leu Leu Asp
                                        75
                    70
Asp Tyr Phe Gln Arg Pro Asn Gly Glu Ile Val Asn Val Trp Glu Ala
                                    90
Pro Pro His Glu Arg Asp Ala Leu Ile Val Ala Ala Gly Val Ala Gln
                               105
            100
Val Ala Gln Ser Ser Thr Pro Val Gln Ile Trp Arg Trp Glu Gln Leu
                                                125
        115
                            120
Arg Leu Cys Leu
    130
<210> 1655
<211> 1115
<212> DNA
<213> Homo sapiens
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ggagttctgg ataagctttt cggaaagcgg ctcctgcagg ctggtcgcta cctggtgtcc
180
cacaaggegt ggatgaagac ggtgcctaca gagaactgeg acgtgctgat gaccttccca
gacacgaccg atgaccacac gctgctatgg ctgctgaacc acatccgcgt gggcattccc
gageteateg tgeaagteeg ecaceaeege cacaegegtg cetaegeett etttgteaee
360
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gccacgtatg agagcctact ccgaggggcc gacgagctgg gtctgcgcaa agcagtgaag geogagtttg gegggggeae eegeggette teetgegagg aggaetttat etatgagaat gtggagageg agetaegett etteacetee caggaaegee agageateat eegettetgg ctgcagaatt tgcgtgccaa gcagggagaa gcactccaca acgtgcgctt cctggaggac cagccaatca teceggaget ggeageacgt gggateatee ageaggtgtt ceetgteeac gagcagcgta ttctgaaccg cctcatgaag tcatgggtgc aggccgtgtg tgaaaaccag cctctagatg acatctgtga ttactttggt gtgaaaattg ccatgtactt cgcctggctg ggettetaca egteggetat ggtataceca getgtetteg ggtetgteet gtacacatte acagaggetg atcagacaag cegggatgtt teetgegtgg tetttgeeet etteaaegtg atctggtcga cgctgttcct ataggaatgg aagcgtatag gggctgagct gggatataat tgggggacgc tggactcatc ctgggaagcc gtggaggagc cacgcccca gttcaggtgc gtgcgacqta tcatccccat cactcgggcc gaggagttct actacccgcc ctggaagcgg ctgctcttcc agctgcttgt tagcctccgc ctgtg 1115 <210> 1656 <211> 299 <212> PRT <213> Homo sapiens <400> 1656 Met Ala Glu Ala Ala Ser Gly Ala Gly Gly Thr Ser Leu Glu Gly Glu Arg Gly Lys Arg Pro Pro Pro Glu Gly Glu Pro Ala Ala Pro Ala Ser 20 25 Gly Val Leu Asp Lys Leu Phe Gly Lys Arg Leu Leu Gln Ala Gly Arg 45 40 Tyr Leu Val Ser His Lys Ala Trp Met Lys Thr Val Pro Thr Glu Asn 55 60 Cys Asp Val Leu Met Thr Phe Pro Asp Thr Thr Asp Asp His Thr Leu 70 65 Leu Trp Leu Leu Asn His Ile Arg Val Gly Ile Pro Glu Leu Ile Val 90 Gln Val Arg His His Arg His Thr Arg Ala Tyr Ala Phe Phe Val Thr 105 100 Ala Thr Tyr Glu Ser Leu Leu Arg Gly Ala Asp Glu Leu Gly Leu Arg 120 115 Lys Ala Val Lys Ala Glu Phe Gly Gly Gly Thr Arg Gly Phe Ser Cys 140 135 Glu Glu Asp Phe Ile Tyr Glu Asn Val Glu Ser Glu Leu Arg Phe Phe 155 150 Thr Ser Gln Glu Arg Gln Ser Ile Ile Arg Phè Trp Leu Gln Asn Leu

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170
                165
Arg Ala Lys Gln Gly Glu Ala Leu His Asn Val Arg Phe Leu Glu Asp
                                185
Gln Pro Ile Ile Pro Glu Leu Ala Ala Arg Gly Ile Ile Gln Gln Val
                            200
Phe Pro Val His Glu Gln Arg Ile Leu Asn Arg Leu Met Lys Ser Trp
                                             220
                        215
Val Gln Ala Val Cys Glu Asn Gln Pro Leu Asp Asp Ile Cys Asp Tyr
                    230
                                         235
Phe Gly Val Lys Ile Ala Met Tyr Phe Ala Trp Leu Gly Phe Tyr Thr
                245
                                     250
Ser Ala Met Val Tyr Pro Ala Val Phe Gly Ser Val Leu Tyr Thr Phe
            260
                                265
                                                     270
Thr Glu Ala Asp Gln Thr Ser Arg Asp Val Ser Cys Val Val Phe Ala
                            280
Leu Phe Asn Val Ile Trp Ser Thr Leu Phe Leu
<210> 1657
<211> 333
<212> DNA
<213> Homo sapiens
<400> 1657
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gcacggagac gcggcgtcag cacggacagc acgcagtctg tgagcctctg caggcagttc
120
ttggagcccg cgggcttccc gcgccgcttc agggggcggg cggcagctcg ggccggtact
tctcccaaaa ctgctccggg caggggggct ccagcagcct ctgcatgaga cggacggcat
ccacgeggcc cgtgtaagtg gcccactcct geggegacat tecacggegg gggtaccctc
gegtggacat cegeceetge tageateagg get
333
<210> 1658
<211> 108
<212> PRT
<213> Homo sapiens
<400> 1658
Met Leu Ala Gly Ala Asp Val His Ala Arg Val Pro Pro Pro Trp Asn
Val Ala Ala Gly Val Gly His Leu His Gly Pro Arg Gly Cys Arg Pro
            20
                                25
                                                    30
Ser His Ala Glu Ala Ala Gly Ala Pro Leu Pro Gly Ala Val Leu Gly
                            40
Glu Val Pro Ala Arg Ala Ala Arg Pro Leu Lys Arg Arg Gly Lys
Pro Ala Gly Ser Lys Asn Cys Leu Gln Arg Leu Thr Asp Cys Val Leu
                                        75
Ser Val Leu Thr Pro Arg Leu Arg Ala Gly Pro Gly Gly Arg Gly Arg
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95
Pro Gly Pro His Gly Pro Asp Asp Leu Glu Pro Leu
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            100
<210> 1659
<211> 382
<212> DNA
<213> Homo sapiens
<400> 1659
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tacacaactt acaagatgat tttggatgct attcgtaagg tgcctactgc cactgttctc
cttaatggag acagtccact tttctacaag ccagctattc caaatcctgt acagtatttt
ggttttgact tggagaaagg cccagcccaa ctggctcact ataataccga aggaattctc
tgtcccgact gccaaggcat cctcaaatat gagcataata cctatgcaaa cttgggcgcc
tatatetgtg aagactgtgg atgtaaacgt cetgateteg actategett gacagaactg
gttgagttaa ccaacaatcg cn
382
<210> 1660
<211> 127
<212> PRT
<213> Homo sapiens
<400> 1660
Xaa Ser Leu Phe Val Ile Thr Asn Ile Phe Arg Asp Gln Met Gly Arg
                                    10
Tyr Gly Glu Ile Tyr Thr Thr Tyr Lys Met Ile Leu Asp Ala Ile Arg
                                25
Lys Val Pro Thr Ala Thr Val Leu Leu Asn Gly Asp Ser Pro Leu Phe
Tyr Lys Pro Ala Ile Pro Asn Pro Val Gln Tyr Phe Gly Phe Asp Leu
                                            60
Glu Lys Gly Pro Ala Gln Leu Ala His Tyr Asn Thr Glu Gly Ile Leu
Cys Pro Asp Cys Gln Gly Ile Leu Lys Tyr Glu His Asn Thr Tyr Ala
                                    90
Asn Leu Gly Ala Tyr Ile Cys Glu Asp Cys Gly Cys Lys Arg Pro Asp
                                105
Leu Asp Tyr Arg Leu Thr Glu Leu Val Glu Leu Thr Asn Asn Arg
                            120
<210> 1661
<211> 524
<212> DNA
<213> Homo sapiens
<400> 1661
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acgogtogat gatcatggag aagacgcggg coggeteett geetgtgace ttettgtaca
gctgcgggta gtagagctcc aggctctcga ggaaggccac gtagcccttg tggccggtcc
120
getgeaggat gteeaggage acaccactt teegtttgeg gatgaceagg ttggggtege
180
tgagcacctg ctcctcatca tcagggttca ggaccttgca ctgccgcagg taaggtgtga
tgcgtgaggg gtcgatgacc gaggtgagcg tcacccggaa gccctccagg acgttccagc
actcgtcatc gttctcgtag tccgacatgg cctcagcagg caggctgggg agtgtggggc
agtgctgaga gcgatgccgg ctcctgcccc cacccgggcc cagctcccac tccttctcag
acgctgggcc agggctctcg tcagggcatc gagggggatc agcccaggcg catccaggag
aggtgcccag ctccgtgtcc catcccacgc ttgatcgctg catg
524
<210> 1662
<211> 174
<212> PRT
<213> Homo sapiens
<400> 1662
Met Gln Arg Ser Ser Val Gly Trp Asp Thr Glu Leu Gly Thr Ser Pro
Gly Cys Ala Trp Ala Asp Pro Pro Arg Cys Pro Asp Glu Ser Pro Gly
                                 25
Pro Ala Ser Glu Lys Glu Trp Glu Leu Gly Pro Gly Gly Gly Arg Ser
                             40
Arg His Arg Ser Gln His Cys Pro Thr Leu Pro Ser Leu Pro Ala Glu
Ala Met Ser Asp Tyr Glu Asn Asp Asp Glu Cys Trp Asn Val Leu Glu
                    70
                                        75
Gly Phe Arg Val Thr Leu Thr Ser Val Ile Asp Pro Ser Arg Ile Thr
                85
                                    90
Pro Tyr Leu Arg Gln Cys Lys Val Leu Asn Pro Asp Asp Glu Glu Gln
                                105
                                                  110
Val Leu Ser Asp Pro Asn Leu Val Ile Arg Lys Arg Lys Val Gly Val
                                                125
Leu Leu Asp Ile Leu Gln Arg Thr Gly His Lys Gly Tyr Val Ala Phe
                        135
                                            140
Leu Glu Ser Leu Glu Leu Tyr Tyr Pro Gln Leu Tyr Lys Lys Val Thr
                    150
                                                             160
                                        155
Gly Lys Glu Pro Ala Arg Val Phe Ser Met Ile Ile Asp Ala
                165
<210> 1663
<211> 321
<212> DNA
<213> Homo sapiens
<400> 1663
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nnagtacttg tcatgattac gcctagtttg ggtatctatt tctctcagcg ttctcagatc
tecegaacee aagaegaega ggeteggaea egegetteta tetegaeeet teaagaegag
gtcaagaggt ggcacgatcc cgactacgtc cgtgctcagg cgcgctccca gctcggctgg
gtgatgccgg gcgaaactgg gtatcaggtc attggagaaa acggtaaggt cattggatcg
acgacttctt tggacgaaaa agatccggcg agtgaagcca gcgctgacgc tcggtggtgg
caagaggctt gcggatcagt c
321
<210> 1664
<211> 107
<212> PRT
<213> Homo sapiens
<400> 1664
Xaa Val Leu Val Met Ile Thr Pro Ser Leu Gly Ile Tyr Phe Ser Gln
Arg Ser Gln Ile Ser Arg Thr Gln Asp Asp Glu Ala Arg Thr Arg Ala
            20
                                25
Ser Ile Ser Thr Leu Gln Asp Glu Val Lys Arg Trp His Asp Pro Asp
                            40
Tyr Val Arg Ala Gln Ala Arg Ser Gln Leu Gly Trp Val Met Pro Gly
Glu Thr Gly Tyr Gln Val Ile Gly Glu Asn Gly Lys Val Ile Gly Ser
                                        75
Thr Thr Ser Leu Asp Glu Lys Asp Pro Ala Ser Glu Ala Ser Ala Asp
                85
Ala Arg Trp Trp Gln Glu Ala Cys Gly Ser Val
                                 105
            100
<210> 1665
<211> 431
<212> DNA
<213> Homo sapiens
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atgagtgcta agtcgatggg cattcatacc tgtatcgata cctccggttt tttggggggct
geggeaacag atgaettttt agagtetgtt gatttggtgt tgetegaegt caaateggga
gatgaagaaa totaccgtgo cotcaccggo agagcgttgo aacctaccat cgattttggt
gatcgtctca ccgcgctcgg taaagaaatc tggattcggt tcgttgtggt ccccggatac
accgactcgg tagagaacgt ggaaaaggtt gccgatatcg tccgcagatg gcgcaccgct
420
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gtttcacgcg t
431
<210> 1666
<211> 143
 <212> PRT
 <213> Homo sapiens
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Ala Ser Glu Leu Ile Lys Lys Leu Lys Arg Tyr Lys Met Val Leu Arg
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Ser Thr Gly Gly Gly Pro Thr Ile Ser Gly Gly Glu Val Leu Met Gln
            20
                                 25
Arg Ala Phe Ala Trp Asn Leu Leu Met Ser Ala Lys Ser Met Gly Ile
                             40
His Thr Cys Ile Asp Thr Ser Gly Phe Leu Gly Ala Ala Ala Thr Asp
Asp Phe Leu Glu Ser Val Asp Leu Val Leu Leu Asp Val Lys Ser Gly
                    70
                                         75
Asp Glu Glu Ile Tyr Arg Ala Leu Thr Gly Arg Ala Leu Gln Pro Thr
                 85
                                     90
Ile Asp Phe Gly Asp Arg Leu Thr Ala Leu Gly Lys Glu Ile Trp Ile
            100
                                 105
Arg Phe Val Val Val Pro Gly Tyr Thr Asp Ser Val Glu Asn Val Glu
                             120
                                                 125
Lys Val Ala Asp Ile Val Arg Arg Trp Arg Thr Ala Val Ser Arg
    130
                        135
                                             140
<210> 1667
<211> 370
<212> DNA
<213> Homo sapiens
<400> 1667
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gttgagtcta ctgaggcccg tggcttggac aagatcgcca agatcgactg ggatccgcac
accaccagtg gcatcatgtc gaaggcagct gctgagatcg ctgagcgcgc cgaggccaag
ttcatcgtgg cctttaccaa gtccggtgac accgcccgtc gtatcgctcg tctgcgtccg
agcaccccgc tcatcgtttt cacctctgat gagaccacga ccaagaccct cgcctgggtc
tggggcgctc acgccgtcgt taccccggtg tttaagaatg cggaggagct gtaccgctgg
gttaacgcgt
370
<210> 1668
<211> 123
<212> PRT
<213> Homo sapiens
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<400> 1668
Ser Ala Glu Thr Ser Val Gly Asp Phe Pro Gly Glu Thr Val Arg Thr
Met Ala Lys Ile Val Glu Ser Thr Glu Ala Arg Gly Leu Asp Lys Ile
                                25
            20
Ala Lys Ile Asp Trp Asp Pro His Thr Thr Ser Gly Ile Met Ser Lys
                                                45
                            40
Ala Ala Ala Glu Ile Ala Glu Arg Ala Glu Ala Lys Phe Ile Val Ala
    50
Phe Thr Lys Ser Gly Asp Thr Ala Arg Arg Ile Ala Arg Leu Arg Pro
                                        75
                    70
Ser Thr Pro Leu Ile Val Phe Thr Ser Asp Glu Thr Thr Thr Lys Thr
                                    90
Leu Ala Trp Val Trp Gly Ala His Ala Val Val Thr Pro Val Phe Lys
            100
                                105
Asn Ala Glu Glu Leu Tyr Arg Trp Val Asn Ala
                            120
        115
<210> 1669
<211> 1491
<212> DNA
<213> Homo sapiens
<400> 1669
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cgaaaactcc accccttct caaacgagtt attcctagct ccgccccag tccttgcctc
tcccagcctt ggtggtaatt agcttgaaag tgggaacgag agtgcggtcc gcaaagaaag
gacttctggt tagacactga aatacaaaca gactgccaac gagctctggg caaagctgcc
ccgtcttctt ttttcgaaag accctcaaaa actgcctttc cttctgctac caaaacttgg
gccctagaaa gtggctgcgg agtggagcag atggacatca ctgagaatgg tagaggaggg
gctgtgtttt ctgaggggga gtcatggcag cttgtgctgg gggccaggaa gggaaaaaac
420
caatctggca ttcaggttgt ggaaggcaaa gtgaaacaag aagtcatttg ggaaaatatt
atattataaa cacatagaat aatatgtaca cgctcatata catcccaaag agaagcctca
aggagttccg tttcttctca aaagaaactt cactatgata aagcattcct atagtgggaa
600
ttaactacaa tgaaataatt taacaatttc atttatgcta tatctgtgtc cactacagag
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tcaaaaatag gcaatgacct gttttttct attcacattt acaatagcta cacagtgatg
aaacgcagac tgaaaaatca aatggcagga cgatggaact gtcgtcaagg ttctcagact
tgtggcttct gcacctgtta tacttttgga tacgagtgag ctccacttag cttcgttaag
900
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attagaaatt tccatgaaac acttacccac atataaattc tgtgtaaagc tttattttt
 tccccaccta ctttaatttt ttttaaaaag tgaaataaga ggaaaaactc ttataaaata
 taaggtttaa catacgagag agegaggaac acceeggagg etgeeggtge gtgtggette
 1080
 atgtttctgt gctacatgag tctagtgtcc tcatcttcca ttgtgacaac ccttctcccc
 ccatcacact gtcaatgagc tctaggcaaa gctgccccgt ttgcttttaa cctaagggat
 gctgtggttt ggttgactac atttgactac caccactgaa ggcggcggac gtctgaagcg
 1260
 gctggatacc gcaacgatgg aaaatcaggc gaggtactag cgtggagggc cgggctgcca
 1320
 ggtcaaggtc gtctgggttc tcaggagcca gtctgtgcca cagaaccatc ggcagctgcc
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 tccttgggta gcaaaagccg tatgcgatct aaatcaagct ttcaatcatg a
1491
<210> 1670
 <211> 132
 <212> PRT
<213> Homo sapiens
<400> 1670
Met Pro Asp Trp Phe Phe Pro Phe Leu Ala Pro Ser Thr Ser Cys His
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Asp Ser Pro Ser Glu Asn Thr Ala Pro Pro Leu Pro Phe Ser Val Met
                                 25
Ser Ile Cys Ser Thr Pro Gln Pro Leu Ser Arg Ala Gln Val Leu Val
                             40
Ala Glu Gly Lys Ala Val Phe Glu Gly Leu Ser Lys Lys Glu Asp Gly
Ala Ala Leu Pro Arg Ala Arg Trp Gln Ser Val Cys Ile Ser Val Ser
                                         75
Asn Gln Lys Ser Phe Leu Cys Gly Pro His Ser Arg Ser His Phe Gln
                85
                                     90
Ala Asn Tyr His Gln Gly Trp Glu Arg Gln Gly Leu Gly Ala Glu Leu
            100
                                105
Gly Ile Thr Arg Leu Arg Arg Gly Trp Ser Phe Arg Cys Ser Phe Pro
        115
                            120
                                                125
Cys Ser Val Leu
    130
<210> 1671
<211> 432
<212> DNA
<213> Homo sapiens
<400> 1671
gcgcgccggg gcgggaggac gccagtcgtc ttcccgcccc tcaccacgac acgaccatta
60
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tegegaegaa ggaageecat ggetgaaaee acategeegg cacageggaa acceaeggeg
gcatcccgca tgaagccggt gtcgcgggtc ggggacacga ttttcgctgg cgcctcgtcg
gttattgcca tagccctggc cgtcatcgtc atcctgatgt tcgtcttcct catgaagacg
gcagccccga cgttgttggc taacaccgat aactttttca cgtcccgggc ttggacaacg
gatcagaacc cgccggcctt tggtatccag gccctgctat ggacgacagt catctcatcc
ctgcttgccc tgctcatcgc agtgccgctc tcggtgggca tcgctctgtt tatcacccag
ctcgcaccta gg
432
<210> 1672
<211> 144
<212> PRT
<213> Homo sapiens
<400> 1672
Ala Arg Arg Gly Gly Arg Thr Pro Val Val Phe Pro Pro Leu Thr Thr
Thr Arg Pro Leu Ser Arg Arg Arg Lys Pro Met Ala Glu Thr Thr Ser
Pro Ala Gln Arg Lys Pro Thr Ala Ala Ser Arg Met Lys Pro Val Ser
                            40
Arg Val Gly Asp Thr Ile Phe Ala Gly Ala Ser Ser Val Ile Ala Ile
                        55
Ala Leu Ala Val Ile Val Ile Leu Met Phe Val Phe Leu Met Lys Thr
                                        75
                    70
Ala Ala Pro Thr Leu Leu Ala Asn Thr Asp Asn Phe Phe Thr Ser Arg
                                    90
Ala Trp Thr Thr Asp Gln Asn Pro Pro Ala Phe Gly Ile Gln Ala Leu
Leu Trp Thr Thr Val Ile Ser Ser Leu Leu Ala Leu Leu Ile Ala Val
                            120
Pro Leu Ser Val Gly Ile Ala Leu Phe Ile Thr Gln Leu Ala Pro Arg
    130
<210> 1673
<211> 401
<212> DNA
<213> Homo sapiens
<400> 1673
tegegageae actecageet etggggegte tgccagggee tetgtgtttt gatatactet
gacctggcag tgaagctgct gatgaatgca cgacaaagac cagtttgctc cgtaacccca
ggctcccagc gtcttttcca tgagccaaag gcctggtcct ggaggggggt gccctgcagc
totgotggcc ttottocagg ggagttoatt gotgggggtg gccctgcagg gacctccact
240
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gtgctgggga ggggaagaag aaggatgcaa cagggggagg ggagaatttg agaaaatagg
atgcaaattc tccacttgtg aataaagaaa tagagagcca ttgctaagaa ctatgtttac
gcagggttag tgctgggacc cagaaccagt caactggttt t
401
<210> 1674
<211> 113
<212> PRT
<213> Homo sapiens
<400> 1674
Met Ala Leu Tyr Phe Phe Ile His Lys Trp Arg Ile Cys Ile Leu Phe
                                    10
 1
Ser Gln Ile Leu Pro Ser Pro Cys Cys Ile Leu Leu Pro Leu Pro
                                25
Ser Thr Val Glu Val Pro Ala Gly Pro Pro Pro Ala Met Asn Ser Pro
Gly Arg Arg Pro Ala Glu Leu Gln Gly Thr Pro Leu Gln Asp Gln Ala
Phe Gly Ser Trp Lys Arg Arg Trp Glu Pro Gly Val Thr Glu Gln Thr
                                        75
                    70
Gly Leu Cys Arg Ala Phe Ile Ser Ser Phe Thr Ala Arg Ser Glu Tyr
                                    90
Ile Lys Thr Gln Arg Pro Trp Gln Thr Pro Gln Arg Leu Glu Cys Ala
            100
                                105
Arg
<210> 1675
<211> 500
<212> DNA
<213> Homo sapiens
<400> 1675
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gegecaaceg caegggeage eteccacaeg ceetetagag egetgetgga cagaatgget
tgattgtttg gcatgctctc aggatacccg tttagccagg aaacaccggt aggcttgcta
ctatgcgagc agccgacgca cgggtagagg gaattcccac cacagtccct cgcactccac
ecquacacge cetgggaace gteaccegeg gtaccacegg gteaategge teegcaaatg
cgaccgctgg atgtgccacc accccgcnca tccgcagtgc gctccgtaac gccgtctgca
360
acaccytice eteogratet geogacaect gtgccaacae ttgtaccgat gcatgcaccy
atgcagcaac aggcgctccg ctcgctatcg atctgggata cggcgccgcc ccctggacca
ctgttgagat ggctacgcgt
500
```

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<210> 1676
<211> 97
<212> PRT
<213> Homo sapiens
<400> 1676
Arg Glu Phe Pro Pro Gln Ser Leu Ala Leu His Pro His Thr Pro Trp
1
Glu Pro Ser Pro Ala Val Pro Pro Gly Gln Ser Ala Pro Gln Met Arg
           20
Pro Leu Asp Val Pro Pro Pro Arg Xaa Ser Ala Val Arg Ser Val Thr
                            40
Pro Ser Ala Thr Pro Ser Pro Pro Tyr Leu Pro Thr Pro Val Pro Thr
                        55
Leu Val Pro Met His Ala Pro Met Gln Gln Gln Ala Leu Arg Ser Leu
                    70
                                        75
Ser Ile Trp Asp Thr Ala Pro Pro Pro Gly Pro Leu Leu Arg Trp Leu
                                    90
                85
Arg
<210> 1677
<211> 631
<212> DNA
<213> Homo sapiens
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gatttgcgcg gtacgggtgc ttctactggg tgtttgngac tggaatggtc cnncggggag
120
cagcaggatg ttgtgaccgc cgtggaatgg gcggcggtac agccgtggtc gaatggtcgg
gtggggcttt.tcggtaaatc ctacgatggg gggacggggt cttattgctg caggtaatca
geogeggggg ttggetgetg tggtggegea ggagecaget atggagecet acaettaeet
300
gtataacaat gaggtccttt actacaacgc tattggtacg agcctttctt atgatgagat
360
tgctgcctcc cccggccgtg tccttcacga cactcccgaa tatatgaaga acagtgtcta
cgaggtggcc cacccgcatt gcctgtccga caatttgcgt aattctttag accccatccg
tagocacaaa taatgggogg gatoggtott toootcacca agacgcataa tttooocogt
gecettgitt atticegetg geettatiga ggacaataeg gageetgaig gittggigga
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631
<210> 1678
<211> 78
<212> PRT
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<213> Homo sapiens <400> 1678 Xaa His Asp Phe Leu Asn Asp Ala Lys Val Met Glu Ala Gly Tyr Thr Trp Val Gln Val Asp Leu Arg Gly Thr Gly Ala Ser Thr Gly Cys Leu 25 Xaa Leu Glu Trp Ser Xaa Gly Glu Gln Gln Asp Val Val Thr Ala Val 40 Glu Trp Ala Ala Val Gln Pro Trp Ser Asn Gly Arg Val Gly Leu Phe Gly Lys Ser Tyr Asp Gly Gly Thr Gly Ser Tyr Cys Cys Arg 70 <210> 1679 <211> 531 <212> DNA <213> Homo sapiens <400> 1679 nctacttaga gcaaaggtag gaaaagaagg cagctaggeg tggctctcat tccttcccac agaatggatt ataagtcgag cctgatccag gatgggaatc ccatggagaa cttggagaag cagetgatet geeetatetg cetggagatg tttaccaage cagtggteat ettgeegtge 180 cagcacaacc tgtgccggaa gtgtgccaat gacatcttcc aggctgcaaa tccctactgg 240 accagooggg goagetoagt gtocatgtot ggaggoogtt toogetgood tacotgooge cacgaggtga tcatggatcg tcacggagtg tacggcctgc agaggaacct gctggtggag aacatcatcg acatctacaa acaggagtgc tecagteggc egetgcagaa gggcagtcac cccatgtaca aggagcacga agatgagaaa atcaacatct actgtctcac gtgtgaggtg cccacctgct ccatgtgcaa ggtgtttggg atccacaagg cctgcgaggt g 531 <210> 1680 <211> 143 <212> PRT <213> Homo sapiens <400> 1680 Met Glu Asn Leu Glu Lys Gln Leu Ile Cys Pro Ile Cys Leu Glu Met 1 5 10 Phe Thr Lys Pro Val Val Ile Leu Pro Cys Gln His Asn Leu Cys Arg 3.0 25 Lys Cys Ala Asn Asp Ile Phe Gln Ala Ala Asn Pro Tyr Trp Thr Ser . 45 Arg Gly Ser Ser Val Ser Met Ser Gly Gly Arg Phe Arg Cys Pro Thr 50 55 60

Cys Arg His Glu Val Ile Met Asp Arg His Gly Val Tyr Gly Leu Gln

```
65
                    70
                                        75
Arg Asn Leu Leu Val Glu Asn Ile Ile Asp Ile Tyr Lys Gln Glu Cys
                85
Ser Ser Arg Pro Leu Gln Lys Gly Ser His Pro Met Tyr Lys Glu His
                                                    110
                                105
            100
Glu Asp Glu Lys Ile Asn Ile Tyr Cys Leu Thr Cys Glu Val Pro Thr
                            120
        115
Cys Ser Met Cys Lys Val Phe Gly Ile His Lys Ala Cys Glu Val
                        135
<210> 1681
<211> 396
<212> DNA
<213> Homo sapiens
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ttttccacca acagcaacct ctccaagcac aagaagaagc acggcgacaa gaagtttgcc
tgtgaggtct gcagcaagat gttctaccgc aaggacgtca tgctggacca ccagcgccgg
cacnetqqaa qqaqtqcqqc qaqtqaaqcq nnaqaqqacc tqqaqqccqq tqqqqaqaac
ctggtccgtt acaagaagga gccttccggg tgcccggtgt gtggcaaggt gttctcctgc
cggagcaata tgaacaagca cctgctcacc cacggcgaca agaagtacac ctgcgagatc
tgcgggcgca agttcttccg cgtggatgtg ctcagg
396
<210> 1682
<211> 132
<212> PRT
<213> Homo sapiens
<400> 1682
Glu Phe His Asn Cys Arg Thr Asp Asp Lys Thr Phe Gln Cys Glu Met
                                    10
Cys Phe Arg Phe Phe Ser Thr Asn Ser Asn Leu Ser Lys His Lys Lys
                                25
Lys His Gly Asp Lys Lys Phe Ala Cys Glu Val Cys Ser Lys Met Phe
Tyr Arg Lys Asp Val Met Leu Asp His Gln Arg Arg His Xaa Gly Arg
Ser Ala Ala Ser Glu Ala Xaa Glu Asp Leu Glu Ala Gly Gly Glu Asn
                    70
Leu Val Arg Tyr Lys Lys Glu Pro Ser Gly Cys Pro Val Cys Gly Lys
                                    90
                85
Val Phe Ser Cys Arg Ser Asn Met Asn Lys His Leu Leu Thr His Gly
            100
                                105
Asp Lys Lys Tyr Thr Cys Glu Ile Cys Gly Arg Lys Phe Phe Arg Val
                            120
        115
Asp Val Leu Arg
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100 105 110 Gly Cys Ala Gly Ser Ala Val Cys Ala Trp Thr Thr Thr Ser Ala Arg

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<213> Homo sapiens

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405

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410
 Leu Arg Leu Arg Leu Val Glu Glu Glu Ala Asn Ile Leu Gly Arg Lys
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                                 425
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 Ile Val Glu Leu Glu Val Glu Asn Arg Gly Leu Lys Ala Glu Leu Asp
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 Asp Leu Arg Gly Asp Asp Xaa Ser Thr Ala Arg Pro Thr Arg Ser
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<211> 89
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Gly Thr Gln Ser Gly Ser Leu Lys Tyr His Leu Gln Arg His His Arg
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Glu Gln Lys Asn Ser Ala Gly Ser Trp Ala Ser Pro Arg Thr Pro Ala
                            40
Thr Phe Pro Ala Gly Leu Thr Ala Ala Ala Val Arg Ser Gln Ala Asn
                        55
Ser Gly Leu Ser His Leu Gly Arg Gly His Cys Lys Tyr Pro Ala Ser
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Phe Glu Gln His Arg Thr Arg Val Pro
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atgtggtacc agaattttcc agtttggcgg actatcttga tcaaatcaac taaattattg
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301
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Leu Val Ile Ala Asp Asn Thr His Val Ala Pro Arg Lys Lys Leu
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Ala Phe Ser Gln Ser Ile Lys Pro Lys Gln Thr Thr Ser Leu Tyr Ile
                            40
Arg Gln Ile Met Trp Tyr Gln Asn Phe Pro Val Trp Arg Thr Ile Leu
                                            60
Ile Lys Ser Thr Lys Leu Leu Pro Leu Trp Leu Ser Val Lys Glu His
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                   .70
Asn Glu Glu Asn Leu Glu Pro Tyr Leu Ile Leu
                85
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<211> 483
<212> DNA
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ttgtgccttg aagtgtggga ccgcggcccc ggcattcctc aagacaaaca aaagtcattc
120
ttcgaagaat tcaaacgcct ggacagtcac cagacccgcg ccgagaaagg cctgggcctg
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ccg
483
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<210> 1692

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<211> 161
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Arg Arg Gly Glu Leu Cys Leu Glu Val Trp Asp Arg Gly Pro Gly Ile
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Pro Gln Asp Lys Gln Lys Ser Phe Phe Glu Glu Phe Lys Arg Leu Asp
                             40
Ser His Gln Thr Arg Ala Glu Lys Gly Leu Gly Leu Gly Leu Ala Ile
                         55
                                             60
Ala Asp Gly Leu Cys Arg Val Leu Gly His Arg Leu Ser Val Arg Ser
                    70
Trp Pro Gly Lys Gly Ser Val Phe Ser Val Arg Val Pro Leu Ala Arg
                                     90
Thr Gln Val Ser Ala Pro Ala Lys Pro Ala Gln Glu Ser Gly Gln Pro
                                 105
                                                     110
Leu Ser Gly Ala Gln Val Leu Cys Val Asn Asn Lys Glu Ser Ile Leu
                             120
Ile Gly Met Arg Ser Leu Leu Pro Arg Trp Gly Cys Glu Val Trp Pro
                                             140
Ala Arg Asp Gln Ala Gln Cys Ala Ala Leu Leu Ala Glu Gly Val Arg
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Pro
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<210> 1694
<211> 110
<212> PRT
<213> Homo sapiens
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<400> 1694

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 Ile Thr Val Asn Phe Ala Ile Asn Asp Leu Tyr Phe Phe Ser Glu Met
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                     70
 Glu Lys Phe Asn Asp Leu Val Ser Ser Ala His Met Leu Gln Val Asn
                 85
                                     90
Arg Ala Tyr Asn Glu Asn Asp Val Ile Leu Met Arg Ser Lys Met Asn
                                 105
 Ile Ile Gln Lys Leu Phe Leu Asn Ser Asp Ile Pro Pro Lys Leu Arg
                             120
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Val Asn Val Pro Glu Phe Gln Lys Asp Ala Ile Leu Ala Ala Ile Thr
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Glu Gly Tyr Leu
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Thr Ala Gly Leu Arg Val Lys Gly Trp Met Asn Ser Gln Ala Gly Arg
                                25
Val Leu Ser Glu Pro Ala Gly Gln Arg Arg Gln Pro Leu Arg Pro Leu
                            40
Leu Lys Pro Cys Ala Ile Thr Ala Ala Ala Pro Val Val Pro Arg Arg
                        55
Gln Leu Leu Ala Phe Pro Leu Gly Val Glu Phe Ala Gly Ser Pro Ile
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His Arg Pro Leu Gly Gly Gly Lys Thr Ser Arg Ser Pro Lys Pro Val
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                                    90
Thr Cys Asp Ser Pro Glu Asp Gly Gly Asn Leu
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<211> 147
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<213> Homo sapiens
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                                25
Ser Leu His Lys Val Tyr Glu Lys Gly Ile Asn Leu Pro Ala Ser Leu
                         4.0
Phe Ala Leu Asp Ile Asn Gly Ser Thr Val Glu Ser Thr Gly Leu Gly
                        55
Leu Asp Ile Gly Asp Ala Asp Arg Ile Cys Tyr Pro Ile Pro Asp Thr
                                        75
                    70
Leu Cys Asn Glu Pro Trp Gln Lys Arg Pro Thr Ala Gln Leu Leu Met
                                    90
Thr Met His Glu Leu Glu Gly Glu Pro Phe Phe Ala Asp Pro Arg Glu
                                105
Val Leu Arg Gln Val Val Ser Lys Phe Asp Asp Leu Gly Leu Thr Ile
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Gly Lys Ala Leu Asp Tyr Tyr Met Leu Arg Asn Gly Asp Thr Met Glu
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Tyr Arg Lys Lys Gln Arg Pro Leu Lys Ile Arg Met Leu Asp Gly Thr
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Met Thr Ile Cys Ala Arg Ile Gly Ile Thr Asn His Asp Glu Tyr Ser
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Leu Val Arg Glu Leu Met Glu Glu Lys Lys Glu Glu Gly Thr Gly Thr
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Leu Arg Arg Lys Phe Phe Tyr Ser Asp Gln Asn Val Asp Ser Arg Asp
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Asn Gly Ser His Pro Val Ser Phe Asp Lys Ala Cys Glu Phe Ala Gly
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Phe Gln Cys Gln Ile Gln Phe Gly Pro His Asn Glu Gln Lys His Lys
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Gln Lys Gly Glu Arg Lys Ile Phe Gln Ala His Lys Asn Cys Gly Gln
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Met Ser Glu Ile Glu Ala Lys Val Arg Tyr Val Lys Leu Ala Arg Ser
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Leu Lys Thr Tyr Gly Val Ser Phe Phe Leu Val Lys Glu Lys Met Lys
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Val	Met	Ara	Val		Glu	Lvs	Thr	Lvs		Val	Ile	Gln	Glu		Asn
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Leu	Thr	Asn			Arg	Trp	Ala		Ser	Pro	Lys	Ser	Phe	Thr	Leu
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His	Arg	Gly	His	Met	Pro	Pro	Leu	Thr	Ser	Ala	Gln	Gln	Ala		Thr
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_	_		500	_		_	_	505	_			_	510		
Leu	Asp	-	Phe	Asp	Thr	Leu		Pro	Leu	GIĀ	Gin		Ala	Ala	ser
•		515		•		•	520		~ 3	C	T	525	~1	T1.	1114 -
rys		Trp	Arg	гÀ2	Asn		met	Asp	GIU	ser		HIS	GIU	TIE	HIS
C	530	17-1	2	71-	T 1.0	535	77-	C1	The	777	540	37-3	17-1	λοπ	Lou
545	GIII	vai	Asp	AIA	Ile 550	1111	Ala	GIY	1111	555	ser	Val	vai	ASII	560
	בומ	Glv) en	Pro	Ala	Glu	Thr	Δεη	Tvr		Δla	٧al	GIV	Cvs	
1111	AIa	G ₂ y	лор	565	niu	014		nop	570		****			575	
Val	Thr	Thr	Tle		Ser	Asn	Leu	Thr		Met	Ser	Ara	Glv		Lvs
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Leu	Leu	Ala		Leu	Leu	Glu	Asp		Gly	Gly	Ser	Gly		Pro	Leu
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Ser	Ala	Gln	Pro	Ala	Ser	Ala	Glu	Pro	Arg	Gln	Asn	Leu	Leu	Gln	Ala
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Ala	Gly	Asn	Val	Gly	Gln	Ala	Ser	Gly	Glu	Leu	Leu	Gln	Gln	Ile	Gly
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705				_	710	_,	_	_		715	_	~ 1	-2	-1	720
Lys	Val	Val	Ala		Thr	IIe	Ser	Ser		val	Cys	GID	GIU		ьeu
	~1 ··	x1 =	a 1	725	T	17- 1	. 1 -	T	730	170-3	*	01	O	735	Co
val	GIU	Ата	дŢХ	arg	Leu	vai	АТА	тÀг	АТА	vaı	₽À2	GTA	cys	val	ser

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750
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Gly	, Th	r Pl	ne Gl	ln Gl	u Al	a Glr	ı Se			n Acr	. 61,	- והי	123	יטי . אז -	Gly
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Leu	ı As			a Al	a Th	r Gli			1 61	n Ala		127	. 71.	. m.	
	12	50				125		u va.	L GI.	" VI			, GI	Ini	Pro
Gln			רב נוי	a Ar	·σ Δ]:				- 5%	e Gly	126			_	
126	5			u AI	12	1 DEL	. GI	A WL	g Pn			Asp	Phe	Ser	
		, G1	11 23	a (2)					- 41	127	'5	_	_		1280
		_ 01		12	y va. 85	LGIU	Me	C Ala		y Glr	ı Ala	Pro	Ser		
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дар	AL.	4 WT	.a 61	n va	ı val	l Ser	Ası			s Gly	' Ile	Ser	Met	Ser	Ser
C	T	 .		00		_		130					131	0	
Ser	гЪ	s Le	u Le	u Le	u Ala	ı Ala			Lei	ı Ser	Thr	Asp	Pro	Ala	Ala
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1585					1590	- 1	- 2			1595					
le s	er.	Ala	Lvs	Thr		ר וום.	21,,	Sar :	A 1 -	GIV (,,, ,	1	r1 - 6		.600

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Tla	Glu	Dro	Leu		Acn	Ála	Δla			Glu	Ala	Ser	Gln	Leu	Gly
TIE	GIU	1719			7.511		1720					172			
•• / =				- 22 -	V				Dho	C1	Dro			Lau	λla
His			Ser	GIn	met			Tyr	Phe	GIU			1111	neu	ATO
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Ala	Val	Gly	Ala	Ala	Ser	Lys	Thr	Leu	Ser			GIn	GIn	Met	
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Gla	Glu	Δla	Leu		Glu	Δla				Met	Thr	Glu	Ala	Val	Glu
GIII	GIU			014	01 u.		1800					180			
_		179	Thr	™	* ***	2			71-	Car	פות			Val	V=1
Asp			Thr	Inr	reu			AId	HIG	261	1820		Gry	Val	V CL L
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Gly Met Thr Leu Val 1905 Gln Leu	Pro Val Lys Thr 1890 Ala Glu Gln	Ser 1875 Ser Ala Leu Cys	Thr 1860 Asn S Asp Glu Gly Ser 1940	Glu 1845 Ala Thr Tyr Asn His 1925 Pro	1830 Pro Lys Ser Gly Glu 1910 Gly Ser	Glu Ala Pro Arg 1899 Glu Cys Asp	Gly Ile Glu 1886 Leu Ile Ala Ala	Ala 1869 Glu Ala Gly Ala Tyr 1949	Phe 1850 Val Leu Ser Ser Leu 1930 Thr	1835 Val Thr Gly Glu His 1915 Val	Asp Val Pro Ala 1900 Ile Thr	Tyr Gln Leu 1885 Lys Lys Lys Cys	Glu 1870 Ala Pro His Ala Leu 1950	Thr 1855 Met Asn Ala Arg Gly 1935 Ile	Thr Val Gln Ala Val 1920 Ala Glu
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Ala	Thr	Lvs	Ala			Glv	Lvs	Val			Asp	Pro	Ala		Trp
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Gln	Leu	Lvs			Ala	Lvs	Val			Thr	Asn	Val			Leu
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Leu	Lys			Lvs	Ala	Val			Glu	Ala	Thr			Thr	Ara
	213			-1-		213					214		,		5
Ala	Leu		Ala	Thr	Thr			Tle	Ara	Gln			Δla	Val	Phe
214					215		*****			215				,,,,	2160
	Ser	Pro	Glu	Pro			Lve	Thr	Ser			Glu	Δsn	Phe	
C, C				216		7144	275	1.11	217					217	
Ara	Met	Thr	T.ve			Thr	Met	Δla			Lvc	Δla	Val		
		****	218	_			1100	218		,,,,,,	_,_		219		77.4
Glv	Asn	Sar		_	Gln	Glu	Acn			בומ	Thr	212			Sar
ULY	7311	219	_	AL 9	GIII	GIU	220		116	ALG	1111	220		neu	361
Δνα	Arg			λls	Aen	Mat			בומ	Cve	Lare		_	Ala	Ture
AL 9	221		116	714	rap	221		Arg	AIG	Cys	2220		AIG	ALC.	171
uie			Wal.	ת א	Dro			7 ~~~	T ON	7~~			wic	The same	Gly
222		Giu	val	АТА	223	_	vai	Arg	Leu	2235		Leu	nra	TYL	2240
	Glu	Cvc	212	7 cn			T 011	C1.,	T oss			wic	37-1	T 011	
ALG	Giu	cys	AIA	224	_	ıyı	TET	GIU	225		ASD	nis	Val	225	
Thr	Leu	Gln	Lve			Pro	Gliv	Lau			Gln	Len	Th~		
1111	reu	GIII	226		SEI	PIO	GIU	226		GIII	GIII	Leu	227		птэ
Car	Lys	7~~			Gl.	C0~	17-1			T 011	Tlo	C1 n			C1.1
261	Lys	227		ALA	GIY	Ser	228		GIU	nea	116	2285		міа	GIU
בות	Met			Thr	Glu	than .			Dro	Glu) = D			17-1	Tla
ALA	229		GIY	1111	GIU	229		АБР	PIO	Gru	2300		1111	vai	TIE
λl =	Glu		Cl.	T 011	Lan			71 n	ח ה	בות			λl =	715	- ות
230		ASII	Giu	Den	2310	_	AIA	AIA	AIA	2315		GIU	MIG	ALG	2320
	Lys	T 033	Glu	G1n			Dro	7 ~~	77-			Tvc	C3.11	ת א	
шуэ	цуs	neu	Giu	232		шуз	FLO	Arg	2330	-	FIU	цуs	GIU	2335	_
Gl 11	Ser	LAN	λεπ			Glu	G) n	Tla			71-	בוג	Tve		
GIU	Jei	שכע	2340		GIU	GIU	GIII	2345		GIU	ALG	AIG	2350		110
בומ	Ala	ala			בומ	T.A.II	บ=่า			Δ] =	Sar	A 1 a) ra
AIG		2355						_		AIG				GIII	ALY
Gl.	Leu													בות	Len
GIU	2370		AId	GIII	GIY	2375		GIY	ATA	116	2380		ASII	AIA	ren
7 ~~			C1-	T	C ~ ~			T	T10	C			7 ~~~	Mot	17-1
	Asp	GIY	GIII	irp			GIY	Leu	TIE			Ald	Arg	Mec	
2389		21-	mb	3	2390		~	~1	n 1 -	2395		×1 -	21-	17-1	2400
ATS	Ala	ATG	III			ren	cys	GIU			ASN	AIA	AIZ		
	•		_	2405		_	_		2410			_		2415	
GIY	His	Ата			GIII	гÀг	ren			ser	Ala	гÀг			ATS
		m³- ·	2420					2425		_		_	2430		~ 3
Ala	Ser			GIN	Leu				Cys	rys		-		Asp	GID
_	_	2435			_		2440					2445			_
Asp	Ser		Ala	Met				Gln	Ala				Ala	Val	Lys
_	2450		_	_		2455		_			2460				
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2480
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Glu Glu Glu Asn Glu Thr Val Val Lys Glu Lys Met Val Gly
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                                   2490
Gly Ile Ala Gln Ile Ile Ala Ala Gln Glu Glu Met Leu Arg Lys Glu
                               2505
Arg Glu Leu Glu Glu Ala Arg Lys Lys Leu Ala Gln Ile Arg Gln Gln
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120
tetgetetae cettetecat gaetgetgee tggtetgtee tageettget etgatecaca
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346
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Met Asp Gly Thr Val Ile His Met Leu Pro Leu Pro Pro Val Gln Arg
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His His Trp Phe Thr Glu Ala Lys Gly Glu Ser Ser Glu Lys Pro Ala
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Ile Val Phe Met Tyr Arg Cys Asp Pro Ala Gln Gly Gln Leu Ser Val
                            40
                                                45
Asp Gln Ser Lys Ala Arg Thr Asp Gln Ala Ala Val Met Glu Lys Gly
Arg Ala Glu Asn Ala Leu Leu Gln Asp Ser Glu Lys Lys Arg Ser His
                                       75
                    70
Ser Ser Pro Ser Gln Ile Pro Lys Lys Ile Leu Ser His Met Thr His
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120
ctggtgctcc aatcgagttg cagaaaggta tacagggtgg agcaagttta tttaatcctg
gttttggctg gaaccaaaat ccacaagttc aaaccttgaa gaattctcaa ggttctattc
ataatttagt gaggtctgga gttactgttg aaaggaaagt taatgtaggg gcacaaggag
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Asn Phe Pro Glu Gly Leu Ala Ser Thr Gly Ala Pro Ile Glu Leu Gln
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Lys Gly Ile Gln Gly Gly Ala Ser Leu Phe Asn Pro Gly Phe Gly Trp
Asn Gln Asn Pro Gln Val Gln Thr Leu Lys Asn Ser Gln Gly Ser Ile
His Asn Leu Val Arg Ser Gly Val Thr Val Glu Arg Lys Val Asn Val
                    70
                                        75
Gly Ala Gln Gly Ala Phe Asn Ser Ala Pro Ala Pro Gln Met Glu Phe
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                                    90
Pro Thr Val Pro Pro Tyr Asn Pro Ser Ser Phe Gly Ala Ser
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qttctcagcg aacgcgcaca cgaacctctc atcgtcgagg ccagcgacca cattggcgga
gtcatccttg cgggtggtca accttccttc aaggaggacg acctagctct gctggagtgg
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300
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gatettateg etteettegg ggeegateae gtegteetgg egaceggate gaggeegegt
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gacgcgt
427
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Pro Leu Ile Val Glu Ala Ser Asp His Ile Gly Gly Val Ile Leu Ala
                                            60
Gly Gly Gln Pro Ser Phe Lys Glu Asp Asp Leu Ala Leu Leu Glu Trp
                    70
Tyr Arg Thr Thr Leu Glu Glu Leu Gly Val Glu Ile Arg Leu Asn Thr
                                    90
Thr Val Thr Ala Asp Leu Ile Ala Ser Phe Gly Ala Asp His Val Val
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Leu Ala Thr Gly Ser Arg Pro Arg Arg Leu Asp Leu Gly Asp Asp Ala
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Lys Val Ile Asp Ala Thr Asp Ala Leu Leu Asn Arg Asp Ala
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ctectettee agecacatea tateteagee teetggagga aacteceata gettgtetet
tcagtcccag ttgacagctt ctgaacgttt ccaagagaat agttcggatc attcagaaac
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tgcatgtgca agatgggtta tgggagaaat attagccagt gtcttcacat gctcattgat
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446
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Thr Ala Ser Glu Arg Phe Gln Glu Asn Ser Ser Asp His Ser Glu Thr
                             40
Arg Leu Leu Gln Glu Val Phe Phe Gln Ala Ile Leu Leu Ala Val Cys
                         55
Leu Ile Ile Ser Ala Cys Ala Arg Trp Val Met Gly Glu Ile Leu Ala
Ser Val Phe Thr Cys Ser Leu Met Ile Thr Val Ala Tyr Val Lys Ser
                                    90
Leu Phe Leu Ser Leu Ala Ser Tyr Phe Lys Thr Thr Ala Cys Ala Arg
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Phe Val Lys Ile
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cctcaataca attcagtaat gttcattcct ggtgagaagt ctgtccgcac acacagcatc
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coccatgoac tgcccagtoc ccagacccca aagactttgt cctcgcctca cgcacctttt
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ggatat
426
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                                 25
Arg Thr His Ser Ile Ser Gln Ala Ala Glu Ala Val Val Ser Gly Gly
                             40
Leu Gly Ser Phe Ser Pro Lys Tyr Pro Pro His Ala Leu Pro Ser Pro
                         55
                                             60
Gln Thr Pro Lys Thr Leu Ser Ser Pro His Ala Pro Phe Ala Gly Ser
                                         75
His Cys Leu Cys Ala Gln Glu Val Ala Thr Gly Asp Asn Gly Glu Arg
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Ala Glu Gly Gly Lys Gln Gly Gln Gly Glu Ser Leu Pro Arg Gly Thr
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Glu Gly Pro Gln Asp Gly Tyr
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ggtcatgatg aggtcagctt tggaggagca gggccagcgt gtcctgcttt ctgctcctgg
aatgageete aeteeeteee tgeteaagge ageeetteae ceageegeeg ggacaggtge
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Leu Ala Leu Ala Ala Cys His Arg Val Trp Pro Gly Asp Pro Gly Pro
Gln Gln Gly His Asp Glu Val Ser Phe Gly Gly Ala Gly Pro Ala Cys
                             40
Pro Ala Phe Cys Ser Trp Asn Glu Pro His Ser Leu Pro Ala Gln Gly
                         55
Ser Pro Ser Pro Ser Arg Arg Asp Arg Cys Pro Val Pro Pro Ala Ile
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                    70
Pro Gly Ile Leu His Leu Ser Glu Cys Ser Leu Gly Pro Gly Asn Ala
                                     90
Ser Gly Trp
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aaatcgatcc acccaggcgt gtagctgcgg tatttcatca gagttgatcg ttgcgatgag
ttgatcatgg cctgtcatgg cgtagtcttc tacgtcgtaa agtatgagac aatccacggt
aatatggtgt tttttggcca acteggaage eggggtgteg gggaagtegg teeetgtaag
gtatgggcct gtcccaatga cgacgtgtgc tgggtccatg aggagttcgt ccaaggttcg
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480
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489
<210> 1716
<211> 101
<212> PRT
<213> Homo sapiens
<400> 1716
Met Ala Cys His Gly Val Val Phe Tyr Val Val Lys Tyr Glu Thr Ile
His Gly Asn Met Val Phe Phe Gly Gln Leu Gly Ser Arg Gly Val Gly
                                25
Glu Val Gly Pro Cys Lys Val Trp Ala Cys Pro Asn Asp Asp Val Cys
Trp Val His Glu Glu Phe Val Gln Gly Ser Asn Ser Leu Pro Ser Asn
Thr Thr Leu Ser Pro Ser Ala Val Ser Asn Arg Ile Leu Lys Val Tyr
                    70
                                        75
Pro Tyr Ser Val Ser Arg Asn Arg Cys Leu Thr Ser Ala Leu Val Gly
                85
                                    90
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Cys Ala Leu Thr Arg
            100
<210> 1717
<211> 312
<212> DNA
<213> Homo sapiens
<400> 1717
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aatcccactg gaatacacag agagacataa aaacaaggag tgtcctgtag cagagcagcc
aggetggete atgagacaga gggageagte ttetgggaga catggetett getgetgegg
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catgaatgtg tc
312
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<211> 101
<212> PRT
<213> Homo sapiens
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Met Ala Gly Pro Arg Lys Pro Pro Glu Lys Gly Pro Leu Leu Ser Met
Asp Leu Leu Ala Asp Pro Gln Gln Gln Glu Pro Cys Leu Pro Glu Asp
                                25
Cys Ser Leu Cys Leu Met Ser Gln Pro Gly Cys Ser Ala Thr Gly His
                            40
Ser Leu Phe Leu Cys Leu Ser Val Tyr Ser Ser Gly Ile Trp Gly Arg
                        55
Arg Gly Ile Gly Cys Arg Asp Ser Val Cys Leu Leu Glu Thr Arg Asn
                                        75
                    70
Leu Ser Arg Ser Leu Gly Leu Phe Pro Leu Leu Met Trp Phe Leu
                                    90
Leu Arg Cys Met Pro
            100
<210> 1719
<211> 404
<212> DNA
<213> Homo sapiens
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404
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<211> 126
<212> PRT
<213> Homo sapiens
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Met Gly Ala Pro Cys Ser Asn Pro Gly Asp Thr Asp Ser Pro Phe Met
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                                     10
Trp Cys Ala Ala Thr Ser Met Ala Leu Leu Gly Arg Asp Asp Phe Gln
Leu Asn Asp Thr Pro Gln Pro Val Thr Arg Ser Ile Thr Glu Thr Lys
                             40
Thr Lys Asn Trp Ser Val Ser Ala Gly Ile Asp Phe Pro Leu Leu Asp
                        55
                                             60
Val Ile His Ile Ser Ile Ser Ser Ser Tyr Ser Thr Ser Ser Thr Tyr
                    70
Glu Val Gly Glu Thr Val Gly Pro Tyr Asp Val Ala Pro Gly Lys Thr
                85
Ala Val Leu Gln Ala Gly Trp Ile Val Ser Asp Phe Glu Gly Gln His
            100
                                105
Thr Val Cys Gly Pro Asp Lys Lys Trp Gln Gly Arg Gly Asp
        115
                            120
<210> 1721
<211> 529
<212> DNA
<213> Homo sapiens
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120
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cctqtgactc tgcttccggt gttgtcaaat qggggtcatc ccaggacccg caccactggg
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529
<210> 1722
<211> 118
<212> PRT
<213> Homo sapiens
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Met Ala Thr Leu Ser Gly Gln Ser Cys Pro Ser His Ala Gly Gly Ala
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Thr Gly Pro Gly Arg Cys Gly Phe Ser Leu Pro Ala Pro Pro Val Leu
                                25
Cys Trp Ala Leu Val Met Ser Arg His Ser Leu Leu Gly Ser Gly Asp
                            40
       35
Leu Gly Phe Ile Phe Pro Ala Pro Pro Val Leu Cys Trp Ala Pro Val
                                            60
                        55
Met Ser Arg His Ser Leu Leu Gly Leu Gly Asp Leu Gly Phe Ile Phe
                                        75
                    70
Pro Ala Pro Pro Val Leu Arg Trp Ala Pro Val Met Ser Arg His Ser
               85
                                    90
Leu Leu Gly Ser Gly Gly Leu Gly Phe Val Leu Tyr Leu Val Leu Pro
                                105
           100
Phe Thr Gln Ala Pro Ser
       115
<210> 1723
<211> 371
<212> DNA
<213> Homo sapiens
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gcaaagttgg gcgtgagget gaagtcggcg aagttggccg agccatcatt gatcgcaacc
tgcccaatgt gaatgcccag tggcttctct ttgctggccg ccggctgtct tgttgccagt
gtcggccggg tgcgggatca gcaagtcatc gatgttggtg gggcggtcat cggtgatcgc
360
tgcattcaat a
371
<210> 1724
<211> 111
<212> PRT
<213> Homo sapiens
<400> 1724
Met Asp Ile Gln Arg Arg His Arg Val Lys Trp Val Asp Ala Ala Leu
                                    10
Asp Gly His Arg Gly Val Ala Ile Tyr Leu Thr Val Asp Val Asp Ala
                                25
Arg Arg Phe Gly Leu Ala Ala Val Asn Gly Ala Asn Leu Pro Val Glu
                            40
Leu Leu Asn Gly Ser Gly Lys Val Gly Arg Glu Ala Glu Val Gly Glu
Val Gly Arg Ala Ile Ile Asp Arg Asn Leu Pro Asn Val Asn Ala Gln
```

```
65
                     70
                                          75
 Trp Leu Leu Phe Ala Gly Arg Arg Leu Ser Cys Cys Gln Cys Arg Pro
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 Gly Ala Gly Ser Ala Ser His Arg Cys Trp Trp Gly Gly His Arg
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                                 105
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 <212> DNA
 <213> Homo sapiens
 <400> 1725
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 catgcagtgc tggaggccga gaggcagaag atgtcagccc ttgtgcgagg gctgcagagg
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gaggatetta gagecaccaa geaggaacte etgeagetge gaatggagaa ggaggagatg
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gagettaagg aactgeagge agaacggeag agecaggagg tggetgggeg acacegggae
480
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600
gcttccaagg ctaagatggt ggccgaggca gaggcaacag tgctggggca gcggcgggcc
660
gcagtggaga cgacgcttcg ggagacccag gaggaaaatg acgaattccg ccggcgcatc
ctgggtttgg agcagcagct gaaggagact cgaggtctgg tggatggtgg ggaagcggtg
gaggcacgac tacgggacaa gctgcag
807
<210> 1726
<211> 230
<212> PRT
<213> Homo sapiens
<400> 1726
Asp His Ala Val Leu Glu Ala Glu Arg Gln Lys Met Ser Ala Leu Val
                                    10
Arg Gly Leu Gln Arg Glu Leu Glu Glu Thr Ser Glu Glu Thr Gly His
            20
Trp Gln Ser Met Phe Gln Lys Asn Lys Glu Asp Leu Arg Ala Thr Lys
```

Gln Glu Leu Leu Gln Leu Arg Met Glu Lys Glu Glu Met Glu Glu Glu

```
50
                        55
Leu Gly Glu Lys Ile Glu Val Leu Gln Arg Glu Leu Glu Gln Ala Arg
                    70
                                        75
Ala Ser Ala Gly Asp Thr Arg Gln Val Glu Val Leu Lys Lys Glu Leu
Leu Arg Thr Gln Glu Glu Leu Lys Glu Leu Gln Ala Glu Arg Gln Ser
                                105
Gln Glu Val Ala Gly Arg His Arg Asp Arg Glu Leu Glu Lys Gln Leu
                            120
Ala Val Leu Arg Val Glu Ala Asp Arg Gly Arg Glu Leu Glu Glu Gln
                        135
                                            140
Asn Leu Gln Leu Gln Lys Thr Leu Gln Gln Leu Arg Gln Asp Cys Glu
                    150
                                      155
Glu Ala Ser Lys Ala Lys Met Val Ala Glu Ala Glu Ala Thr Val Leu
                165
                                    170
Gly Gln Arg Arg Ala Ala Val Glu Thr Thr Leu Arg Glu Thr Gln Glu
            180
                                185
Glu Asn Asp Glu Phe Arg Arg Ile Leu Gly Leu Glu Gln Gln Leu
                                                205
                            200
Lys Glu Thr Arg Gly Leu Val Asp Gly Glu Ala Val Glu Ala Arg
Leu Arg Asp Lys Leu Gln
225
                    230
<210> 1727
<211> 474
<212> DNA
<213> Homo sapiens
<400> 1727
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gcagcttcag aagacaaaga taagatgaaa aaggaagttt tacaaagctc aagggacatt
atgcaatcca aatcagcttg cgaaattaaa caaagtcacc aagaatgtag tacccaacaa
acacaacaga agaagtattt ggagcagttg cacttgcccc aaagcaaacc aatttcccca
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cacagetatg aaagteataa acageaatet gagattgatg tteaaacett taccaaaaaa
caatatetga aaaccaagaa aactgaagca agcaetgaat gtagteataa gcaatetetg
gctgaaagac attatcagtt acctaagaag gagaaaagag tgacagtaca attg
474
<210> 1728
<211> 130
<212> PRT
<213> Homo sapiens
<400> 1728
Met Lys Lys Glu Val Leu Gln Ser Ser Arg Asp Ile Met Gln Ser Lys
```

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Ser Ala Cys Glu Ile Lys Gln Ser His Gln Glu Cys Ser Thr Gln Gln
Thr Gln Gln Lys Lys Tyr Leu Glu Gln Leu His Leu Pro Gln Ser Lys
Pro Ile Ser Pro Asn Phe Lys Val Lys Thr Ile Lys Leu Pro Thr Leu
                        55
Asp His Thr Leu Asn Glu Thr Asp His Ser Tyr Glu Ser His Lys Gln
                    70
                                         75
Gln Ser Glu Ile Asp Val Gln Thr Phe Thr Lys Lys Gln Tyr Leu Lys
                                     90
Thr Lys Lys Thr Glu Ala Ser Thr Glu Cys Ser His Lys Gln Ser Leu
                                105
Ala Glu Arg His Tyr Gln Leu Pro Lys Lys Glu Lys Arg Val Thr Val
                            120
Gln Leu
    130
<210> 1729
<211> 470
<212> DNA
<213> Homo sapiens
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gccgtcaagg gcggccacat tcgcctcaat ggagacccgg ttaaaccctc ccacgacgtg
aaacceggeg atacegteac catecacace eceggategg acegggteet caaggteate
aacccgatca cgaaaagagt cggcgccaaa ctcgcggtcg aggcttacga agatctgtca
nngccccccg acccgcctac ctctctgnct cccctcgccc gccgcgaccg tggggctgga
cgacccacca agaaggatcg tcgcgagatc gatcggctcc gaggccggga ctctcgctat
tgaggactct tcgcccggcc caacacacca cggctcgcgg ccgaattggc
<210> 1730
<211> 131
<212> PRT
<213> Homo sapiens
<400> 1730
His Val Phe His Gly Lys Gly Gly Ile Met Thr Arg Ile Asp Val Trp
Leu Trp Ser Val Arg Val Tyr Lys Ser Arg Ser Leu Ala Thr Ala Ala
            20
                                25
Val Lys Gly Gly His Ile Arg Leu Asn Gly Asp Pro Val Lys Pro Ser
His Asp Val Lys Pro Gly Asp Thr Val Thr Ile His Thr Pro Gly Trp
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Asp Arg Val Leu Lys Val Ile Asn Pro Ile Thr Lys Arg Val Gly Ala
Lys Leu Ala Val Glu Ala Tyr Glu Asp Leu Ser Xaa Pro Pro Asp Pro
Pro Thr Ser Leu Xaa Pro Leu Ala Arg Arg Asp Arg Gly Ala Gly Arg
            100
                                 105
Pro Thr Lys Lys Asp Arg Arg Glu Ile Asp Arg Leu Arg Gly Arg Asp
Ser Arg Tyr
    130
<210> 1731
<211> 534
<212> DNA
<213> Homo sapiens
<400> 1731
agegeteeet geetgetget gggeggaggg aaggeggeaa gagetgegga geecetggaa
gagettecag gaaccetgeg etgtgggata aaggaatgag gtteagaaag gggeagggag
ttgcccgcag ccgcaccgca cgtcttcagc ccgaccgttg tcctgacctc tctgtcccgt
eccetgeeca gteteaceat ggeettetgg acacagetga tgetgetget etggaagaat
ttcatgtate geeggagaca geeggteeag etcetggteg aattgetgtg geetetette
300
ctettettea teetggtgge tgttegeeac teecaceege ceetggagea ceatgaatge
cactteccaa acaagecact gccateggeg ggcacegtge cetggeteca gggteteate
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534
<210> 1732
<211> 112
<212> PRT
<213> Homo sapiens
<400> 1732
Met Ala Phe Trp Thr Gln Leu Met Leu Leu Leu Trp Lys Asn Phe Met
Tyr Arg Arg Gln Pro Val Gln Leu Leu Val Glu Leu Leu Trp Pro
            20
Leu Phe Leu Phe Phe Ile Leu Val Ala Val Arg His Ser His Pro Pro
                            40
Leu Glu His His Glu Cys His Phe Pro Asn Lys Pro Leu Pro Ser Ala
                                            60
Gly Thr Val Pro Trp Leu Gln Gly Leu Ile Cys Asn Val Asn Asn Thr
                    70
                                        75
Cys Phe Pro Gln Leu Thr Pro Gly Glu Glu Pro Gly Arg Leu Ser Asn
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90
Phe Asn Asp Ser Leu Val Ser Arg Leu Leu Arg Arg Arg Glu Ala Gly
                                105
            100
<210> 1733
<211> 409
<212> DNA
<213> Homo sapiens
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120
gggcaactgc accetetgeg tegaggaeta etegegeagg taegeggega ggateeteaa
180
categiete gaeggeaaeg teetgeageg egeateggee geacagecag egiggetggi
240
tggtgtggtc gcggggatca gcgaactccg atccgtacgt attctccagc ctcgacgctt
accgggcgac cactggtttt taggacette geteggtete gategatgge gtgetgteac
cgcggccgga gcgctgctcc cgggcattga tctcaaggcg gtcacgagg
409
<210> 1734
<211> 134
<212> PRT
<213> Homo sapiens
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Met Ala Asp Pro Thr Val Pro Gly His Asp Pro Arg Arg Pro Ser Pro
                                    10
Asp Pro Asp Met Pro Trp Leu Ile Arg Asp Ile Thr Leu Gly Asn Asn
                                25
Val Ile Ala Gly Ser Thr Gly Asn Cys Thr Leu Cys Val Glu Asp Tyr
Ser Arg Arg Tyr Ala Ala Arg Ile Leu Asn Ile Val Ser Asp Gly Asn
                        55
Val Leu Gln Arg Ala Ser Ala Ala Gln Pro Ala Trp Leu Val Gly Val
                    70
Val Ala Gly Ile Ser Glu Leu Arg Ser Val Arg Ile Leu Gln Pro Arg
Arg Leu Pro Gly Asp His Trp Phe Leu Gly Pro Ser Leu Gly Leu Asp
                                105
            100
Arg Trp Arg Ala Val Thr Ala Ala Gly Ala Leu Leu Pro Gly Ile Asp
                            120
       115
Leu Lys Ala Val Thr Arg
   130
<210> 1735
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<212> DNA
<213> Homo sapiens
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cgtcaggcac caggaaacgt accgacttcc cgctggccgg cagttgacgg atctgggtgg
cggacaccgc aagcggggtc tgccagacga atgcaatatt cccgttcggc ccggtcaggg
ccaaggggtc acttaccgac cgcgcggcca gcaggttgcg caaggcatcc ggcggttcgc
tggcggcatc cgggcgttgc aaaaccagga tgtggcaatg ct
<210> 1736
<211> 112
<212> PRT
<213> Homo sapiens
<400> 1736
Met Val Ile Ser Ile Met Cys Ser Ala Pro Ala Ala Arg Met Phe Val
Arg Ser Ser Ala Pro Phe Ser Ser Thr His Gly Lys Ala Arg Ala His
                                25
Arg Cys Arg Pro Gly Pro Arg Gln Ala Pro Gly Asn Val Pro Thr Ser
                            40
Arg Trp Pro Ala Val Asp Gly Ser Gly Trp Arg Thr Pro Gln Ala Gly
Ser Ala Arg Arg Met Gln Tyr Ser Arg Ser Ala Arg Ser Gly Pro Arg
Gly His Leu Pro Thr Ala Arg Pro Ala Gly Cys Ala Arg His Pro Ala
Val Arg Trp Arg His Pro Gly Val Ala Lys Pro Gly Cys Gly Asn Ala
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            100
                                105
<210> 1737
<211> 506
<212> DNA
<213> Homo sapiens
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120
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aggeagtace aeggegaagg teaegateae eetgegetaa eeetteaage gtetteagea
cegacetata agteteccag acaettttae gaceggeeet ecceettggg gtgggeeeeg
teettttegt gtegtgggat geaectggea geaecaeete eggeeeceat ggagaaeagt
360
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aggtatcctc gcagggtact acggccaagg catatttgac gttccacgct tgccactgcc
 420
 gtcttagggc catactgccg ccacgcagct gagacggtga ccaatcgggt aaggtgactg
 480
 gttgccgtag tccatgcgag gccggc
 506
 <210> 1738
 <211> 113
 <212> PRT
 <213> Homo sapiens
 <400> 1738
Met Ala Leu Arg Arg Gln Trp Gln Ala Trp Asn Val Lys Tyr Ala Leu
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Ala Val Val Pro Cys Glu Asp Thr Tyr Cys Ser Pro Trp Gly Pro Glu
Val Val Leu Pro Gly Ala Ser His Asp Thr Lys Arg Thr Gly Pro Thr
                             40
                                                 45
Pro Arg Gly Arg Ala Gly Arg Lys Ser Val Trp Glu Thr Tyr Arg Ser
                         55
                                             60
Val Leu Lys Thr Leu Glu Gly Leu Ala Gln Gly Asp Arg Asp Leu Arg
                     70
Arg Gly Thr Ala Leu Val Glu Val Gln Pro Arg His Pro Val Ala Trp
                                     90
Val Gly Gly Asp Val Gly Ala Gly Arg Leu His Val Val Pro Val Gly
             100
                                 105
                                                     110
Arg
<210> 1739
<211> 420
<212> DNA
<213> Homo sapiens
<400> 1739
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catcaagtga cggttgatgg atttgtttac cgtgttgata tgcqqttacq cccttttqqa
gagtetggge cattggttag caegtttaat teaatagagg actattatea aacceatggt
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gctattgatt ctttgcgaaa aatgaaaacg atgatcagtg ctgaagttcg tcgcaagggg
ttaaaagaca atattaagtt gggaatggga gggatccgtg aaattgaatt tgtggctcaa
420
<210> 1740
<211> 140
<212> PRT
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<213> Homo sapiens

<400> 1740 Arg Val Ile Glu Asn Ala Ala Phe Phe Thr Lys Leu Gly Gln Arg Leu 10 Ile Gly Ala Leu His Gln Val Thr Val Asp Gly Phe Val Tyr Arg Val Asp Met Arg Leu Arg Pro Phe Gly Glu Ser Gly Pro Leu Val Ser Thr 40 Phe Asn Ser Ile Glu Asp Tyr Tyr Gln Thr His Gly Arg Glu Trp Glu 60 55 Cys Tyr Ala Met Val Lys Ala Arg Val Ile Gly Val Glu Asp Glu Tyr 75 Lys Gln Ala Leu Glu Arg Met Leu Arg Pro Phe Val Phe Arg Arg Tyr 90 85 Ile Asp Phe Ser Ala Ile Asp Ser Leu Arg Lys Met Lys Thr Met Ile 105 100 Ser Ala Glu Val Arg Arg Lys Gly Leu Lys Asp Asn Ile Lys Leu Gly 120 Met Gly Gly Ile Arg Glu Ile Glu Phe Val Ala Gln 135 130 <210> 1741 <211> 378 <212> DNA <213> Homo sapiens <400> 1741 nnacgcgtcg aggtgattca ggccgacgcc actgacccgc tggtccttca cagtctcaat gggcaggtcg acgtcgtcgt ctccaacccg ccctacgtgc cagccggcgc cgtggaggac accgagacgg cccagcacga gcccacggtg gcgctctatg gcgggggccc ggacgggtga gagattecga ttgacgtect gngtgegete agtegegetg etgecacegg eggagtgete gtcatggagc acgaccacga gcagggggcg ctgctgccgg cggccgcttc gtgagccggg ttcaagcagg ccgagaccgg tcaggacctc accggccgcg accgctacct gcgcgcggtg cgtaaacccc gctggtag 378 <210> 1742 <211> 59 <212> PRT <213> Homo sapiens <400> 1742 Xaa Arg Val Glu Val Ile Gln Ala Asp Ala Thr Asp Pro Leu Val Leu 10 His Ser Leu Asn Gly Gln Val Asp Val Val Val Ser Asn Pro Pro Tyr 25 Val Pro Ala Gly Ala Val Glu Asp Thr Glu Thr Ala Gln His Glu Pro

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40
         35
                                                 45
 Thr Val Ala Leu Tyr Gly Gly Gly Pro Asp Gly
    50
 <210> 1743
 <211> 4121
 <212> DNA
 <213> Homo sapiens
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480
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cageceacet acaggtacea eegeetgeee etgeeegage aagggagtee eetggaggee
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gaggetgece ecaegeagge caageceetg cetatggage agttecaggt gatecagage
tttctccgca tggtgcccca gggaaggagg atggtggaag aggtggacag agccatcact
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                            40
Met Asp Val Leu Gly Thr Val Gly Ser Cys Gly Ala Pro Asn Phe Arg
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Gla		G) r	G) v	, G1v	r T.au		· 17=1	Dhe	. Gla	, Mat		, 61,	Dro	. 501	Leu
65					70					75					80
Ser	Gly	Phe	Arg	Arg 85	Val	Leu	Gln	Lys	Let 90	ı Glr	Lys	Ası	Gly	/ His 95	Arg
Glu	Cys	Val	. Ile		Cys	Val	Arg	Glu 105		ı Pro	Val	Leu	1 Phe		Arg
Ala	Asp	Glu 115	Asp		Val	Ser	Tyr 120	Thr		Arg	Asp	Lys 125	Glr		Leu
His		Asn		Gln	Gly		Gly		Gly	/ Val	_	Val		Ser	Leu
Glu	130		Tla	7.20	Tare	135		ui.	, y.c.	Dho	140				Glu
145		ALG	116	vra	150		116	nis	, war	155		. (311.	. Den	Ser	160
		Фуст	Hic	17a 1			λen	The	G1v			т	C11		
				165	-				170)				175	
His	Ala	Val	Ala 180		His	Gly	Glu	Asp	_	Leu	His	Val	Thr 190		Glu
Val	Tyr	Lys 195		Pro	Leu	Phe	Leu 200		Pro	Thr	Tyr	Arg 205	_	His	Arg
Leu	Pro 210	Leu	Pro	Glu	Gln	Gly 215	Ser	Pro	Leu	Glu	Ala 220	Gln	Leu	Asp	Ala
Phe	Val	Ser	Val	Leu	Arg	Glu	Thr	Pro	Ser	Leu	Leu	Gln	Leu	Arq	Asp
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Ala	His	Gly	Pro	Pro 245	Pro	Ala	Leu	·Val	Phe 250		Cys	Gln	Met	Gly 255	Val
Gly	Arg	Thr	Asn 260		Gly	Met	Val	Leu 265		Thr	Leu	Ile	Leu 270		
Arg	Ser			Thr	Ser	Gln			Ala	Ala	Pro		Gln	Ala	Lys
Pro		275 Pro	Met	Glu	Gln		280 Gln	Val	Ile	Gln		285 Phe		Arg	Met
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	Pro	Gin	GLY	Arg		met	Val	GIu	GIu		Asp	Arg	Ala	Ile	Thr
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	_			325		_		_	330	Val				335	
Lys	Lys	Leu	Glu 340	Gly	Ile	Arg	Pro	Glu 345	Ser	Pro	Aļa	Gln	Gly 350	Ser	Gly
Ser	Arg	His 355	Ser	Val	Trp	Gln	Arg 360	Ala	Leu	Trp	Ser	Leu 365	Glu	Arg	Tyr
Phe	Tyr 370	Leu	Ile	Leu			_			His	Glu 380	Gln	Tyr	Pro	Leu
Ala	Phe	Ala	Leu	Ser	Phe	Ser	Arq	Trp	Leu	Cys	Ala	His	Pro	Glu	Leu
385					390			•		395					400
Tyr	Arg	Leu	Pro	Val 405	Thr	Leu	Ser	Ser	Ala 410	Gly	Pro	Val	Ala	Pro 415	Arg
Asp	Leu	Ile	Ala 420		Gly	Ser	Leu	Arg 425		Asp	Asp	Leu	Val 430		Pro
7 am	n1 -	T		The	17-7	N	C1		7 cm	17-1	ת 1 ת	N C TO		N ~~~	λ ~~
_		435				_	440			Val		445	,	_	_
Val	Pro 450	Arg	Met	Pro	Ile	Tyr 455	Gly	Thr	Ala	Gln	Pro 460	Ser	Ala	Lys	Ala
Leu	Gly	Ser	Ile	Leu	Ala	Tyr	Leu	Thr	Asp	Ala	Lys	Arg	Arg	Leu	Arg
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Gly His Thr Tyr Ser Leu Arg Trp Pro Gly Pro Pro Val Ala Pro Asp
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Gln Leu Glu Thr Leu Glu Ala Gln Leu Lys Ala His Leu Ser Glu Pro
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Pro Pro Gly Lys Glu Gly Pro Leu Thr Tyr Arg Phe Gln Thr Cys Leu
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Thr Tyr His Arg Ile Pro Met Pro Asp Phe Cys Ala Pro Arg Glu Glu
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Asp Phe Asp Gln Leu Leu Glu Ala Leu Arg Ala Ala Leu Ser Lys Asp
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Pro Gly Thr Gly Phe Val Phe Ser Cys Leu Ser Gly Gln Gly Arg Thr
                         600
Thr Thr Ala Met Val Val Ala Val Leu Ala Phe Trp His Ile Gln Gly
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Phe Pro Glu Val Gly Glu Glu Leu Val Ser Val Pro Asp Ala Lys
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                                    635
Phe Thr Lys Gly Glu Phe Gln Val Val Met Lys Val Val Gln Leu Leu
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                                650
Pro Asp Gly His Arg Val Lys Lys Glu Val Asp Ala Ala Leu Asp Thr
                            665
Val Ser Glu Thr Met Thr Pro Met His Tyr His Leu Arg Glu Ile Ile
                         680
Ile Cys Thr Tyr Arg Gln Ala Lys Ala Ala Lys Glu Ala Gln Glu Met
                     695
                                       700
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                                    715
Leu Ile Leu Phe Asn Ala Tyr Leu His Leu Glu Lys Ala Asp Ser Trp
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                                730
Gln Arg Pro Phe Ser Thr Trp Met Gln Glu Val Ala Ser Lys Ala Gly
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Ile Tyr Glu Ile Leu Asn Glu Leu Gly Phe Pro Glu Leu Glu Ser Gly
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Glu Lys Arg Trp Asp Lys Ile Gln Glu Leu Val Lys Lys Asp Gly Ile
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Thr Leu Glu Phe Thr Glu Phe Thr Gly Tyr Ser Gln Pro Asn Lys Ala
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Thr Ala Asp Gly Glu Val Asp Leu Asn Ala Phe Gln His Tyr Asn Phe
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Leu Asn Asn Trp Asn Lys Glu Asn Gly Lys Asp Leu Val Ala Ile Ala
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                             40
 Val Thr Ser Pro Asn Phe Ser Pro Phe Asn Trp Thr Asp Gly Glu Asp
                         55
 Ile Leu Val Pro Glu Gly Glu Glu Thr Asp Leu Trp Ala Gly Ser Val
65
                     70
                                         75
Ile Ser Asn Ala Gly Lys Val Thr Leu Phe Phe Thr Ser Val Lys Gly
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Asp Xaa Asp Gly Asn Pro Ser Gly Arg Cys Arg Arg Arg Gln Ser Tyr
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Ser Leu Pro Glu Ala Leu Met Ser Pro Tyr Val Pro Gly Thr Gly Ala
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Glu Arg Gln Arg Val Gln Leu Ala Arg Ala Leu Ala Gln Glu Pro Glu
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Ile Leu Phe Leu Asp Glu Pro Thr Asn His Leu Asp Leu Pro His Gln
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Ile Asp Leu Leu Glu Arg Val Arg Gly Leu Gly Leu Thr Thr Val Thr
                                     90
                85
Val Ile His Asp Leu Asp Leu Ala Ala Ala Tyr Ala Asp Asp Leu Ile
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            100
Val Leu Asp Ser Gly Arg Met Val Ala Gly Gly Pro Ala Ser Thr Val
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Leu Thr Pro Gly Leu Val Arg Asp His Phe Gly Val Asp Gly Glu Val
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                         135
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Trp Ser Ser Ser Arg Arg Gly Phe Thr Trp Asn Gly Leu Gln Thr
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            20
Leu Leu Asp Arg Asp Ser Lys Asp Thr Gln Thr Arg Ile Ser Gln Lys
                            40
Gly Arg Arg Leu Gln Pro Pro Gly Thr Pro Ser Ala Pro Pro Gln Arg
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Arg Pro Arg Lys Gln Leu Asn Pro Cys Arg Gly Thr Glu Arg Val Asp
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Pro Gly Phe Glu Gly Val Thr Leu Lys Phe Gln Ile Lys Pro Asp Ser
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                85
Ser Leu Gln Ile Ile Pro Thr Tyr Ser Leu Pro Cys Ser Ser Arg Ser
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Gln Glu Ser Pro Ala Asp Ala Val Gly Gly Xaa Ala Ala Ile Pro Glu
                                                 125
                            120
Gly Thr Glu Gly His Ser Ala Gly Ser Glu Ala Leu Glu Pro Arg Arg
                                             140
                        135
Cys Ala Ser Cys Arg Thr Gln Arg Thr Pro Leu Trp Arg Asp Ala Glu
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Asp Gly Thr Leu Leu Cys Asn Ala Cys Gly Ile Arg Tyr Lys Lys Tyr
                                    170
                165
Gly Thr Arg Cys Ser Ser Cys Trp Leu Val Pro Arg Lys Asn Val Gln
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Pro Lys Arg Leu Cys Gly Arg Cys Gly Val Ser Leu Asp Pro Ile Gln
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Glu Gly
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240

ttattgtgga atatttcaga ttatttttc caaagagggg aaactattga aaaagaacta

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Cys Thr Cys Leu Gln Ile Val Val Asp Val Ala Gly Ser Phe Gly Leu
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His Asn Gln Glu Leu Asn Ile Ser Leu Thr Ser Ile Gly Leu Leu Trp
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Asn Ile Ser Asp Tyr Phe Phe Gln Arg Gly Glu Thr Ile Glu Lys Glu
                     70
                                         75
Leu Asn Lys Glu Glu Ala Ala Gln Gln Lys Gln Ala Glu Glu Lys Gly
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                                     90
Val Val Leu Asn Arg Pro Phe His Pro Ala Pro Pro Phe Asp Cys Leu
                                105
Trp Leu Cys Leu Tyr Ala Lys Leu Gly Glu Leu Cys Val Asp
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                            120
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                                25
Lys Tyr Trp Lys Glu Glu Cys Phe Gly Leu Thr Ala Glu Leu Val Val
Asp Lys Ala Met Glu Leu Arg Phe Val Gly Gly Val Tyr Gly Gly Asn
Ile Lys Pro Thr Pro Phe Leu Cys Leu Thr Leu Lys Met Leu Gln Ile
Gln Pro Glu Lys Asp Ile Ile Val Glu Phe Ile Lys Asn Glu Asp Phe
                85
Lys Tyr Val Arg Met Leu Gly Ala Leu Tyr Met Arg Leu Thr Gly Thr
                                105
Ala Ile Asp Cys Tyr Lys Tyr Leu Glu Pro Leu Tyr Asn Asp Tyr Arg
                                                125
                            120
Lys Ile Lys Ser Gln Asn Arg Asn Gly Glu Phe Glu Leu Met His Val
                        135
Asp Glu Phe Ile Asp Glu Leu Leu His Ser Glu Arg Val Cys Asp Ile
```

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145
Ile Leu Pro Arg Leu Gln Lys Arg Tyr Val Leu Glu Glu Ala Glu Gln
                                   170
               165
Leu Glu Pro Arg Val Ser Ala Leu Glu Glu Asp Met Asp Asp Val Glu
                                                   190
                               185
            180
Ser Ser Glu Glu Glu Glu Glu Asp Glu Lys Leu Glu Arg Val Pro
                            200
Ser Pro Asp His Arg Arg Arg Ser Tyr Arg Asp Leu Asp Lys Pro Arg
                                            220
                        215
Arg Ser Pro Thr Leu Arg Tyr Arg Arg Ser Arg Ser Arg Ser Pro Arg
                                        235
                   230
Arg Arg Ser Arg Ser Pro Lys Arg Arg Ser Pro Ser Pro Arg Arg Glu
                                    250
                245
Arg His Arg Ser Lys Ser Pro Arg Arg His Arg Ser Arg Ser Arg Asp
                                265
            260
Arg Arg His Arg Ser Arg Ser Lys Ser Pro Gly His His Arg Ser His
                                                285
                            280
Arg His Arg Ser His Ser Lys Ser Pro Glu Arg Ser Lys Lys Ser His
                        295
Lys Lys Ser Arg Arg Gly Asn Glu
                    310
<210> 1759
<211> 324
<212> DNA
<213> Homo sapiens
<400> 1759
aattccatag teeteatggg caagagttac acagegtgga ggaccaaete ecaggeaete
ggcctgggca gacacaatta ttgtcggaat ccagatggtg atgccagacc ttggtgccat
gtgatgaagg accgaaagct gacgtgggaa tactgtgaca tgtccccatg ctccacctgt
ggcctgaggc agtgcaaacg gcctcagttt agaactaaag gaggactcta cacagacatc
acetcacace ettggcagge tgccatettt gtcagcaaca agaggtetee tggagagaga
 ttcctttgtg gaggggtgct gatc
 <210> 1760
 <211> 108
 <212> PRT
 <213> Homo sapiens
 <400> 1760
 Asn Ser Ile Val Leu Met Gly Lys Ser Tyr Thr Ala Trp Arg Thr Asn
                                     10
                 5
 Ser Gln Ala Leu Gly Leu Gly Arg His Asn Tyr Cys Arg Asn Pro Asp
                                 25
 Gly Asp Ala Arg Pro Trp Cys His Val Met Lys Asp Arg Lys Leu Thr
                             40
 Trp Glu Tyr Cys Asp Met Ser Pro Cys Ser Thr Cys Gly Leu Arg Gln
```

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60
Cys Lys Arg Pro Gln Phe Arg Thr Lys Gly Gly Leu Tyr Thr Asp Ile
                    70
                                        75
Thr Ser His Pro Trp Gln Ala Ala Ile Phe Val Ser Asn Lys Arg Ser
                85
                                    90
Pro Gly Glu Arg Phe Leu Cys Gly Gly Val Leu Ile
<210> 1761
<211> 351
<212> DNA
<213> Homo sapiens
<400> 1761
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aataaaaatc aactggagaa ggaaatgggg ttggggagca tcctctgaat atataaaggc
agccattcat tgtaggagag gaggtagaag gaaatgctgt ttgtcgatgg ttcttttcca
gagaggaaga gaggagaaag gaagagcggg gagcaggtgg ggagcccgca gtaagacccc
acagtggggc caggtggtct tgcaccctgt attcccactt tggctggggc agcccagagt
ccaggecage aggtaatgee ccagecatge ccaeteggte ctattggate e
351
<210> 1762
<211> 109
<212> PRT
<213> Homo sapiens
<400> 1762
Met Ala Gly Ala Leu Pro Ala Gly Leu Asp Ser Gly Leu Pro Gln Pro
                                    10
Lys Trp Glu Tyr Arg Val Gln Asp His Leu Ala Pro Leu Trp Gly Leu
                                25
            20
Thr Ala Gly Ser Pro Pro Ala Pro Arg Ser Ser Phe Leu Leu Ser Ser
                            40
Ser Leu Glu Lys Asn His Arg Gln Thr Ala Phe Pro Ser Thr Ser Ser
Pro Thr Met Asn Gly Cys Leu Tyr Ile Phe Arg Gly Cys Ser Pro Thr
                    70
Pro Phe Pro Ser Pro Val Asp Phe Tyr Phe Tyr Phe Phe Gly Ile Glu
                                    90
Ser Arg Ser Val Thr Glu Val Val Val Ser Arg Asp Arg
                                105
            100
<210> 1763
<211> 356
<212> DNA
<213> Homo sapiens
<400> 1763
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gegegeeggg ggegegatgt ggagegggea ettaceegtt teatggeeaa gacaggegag
60
actcagagtc ttttcaaaga tgacgtcagc acatttccat tgattgctgc cagacctttc
accateceet acetgacage tettetteeg tetgaactgg agatgeaaca aatggaagag
acagatteet eggageagga tgaacagaca gacacagaga acettgetet teatateage
atggaggatt ctggagccga gaaagagaac acctctgtcc tgcagcagaa cccctccttg
tegggtagee ggaatgggga ggagaacate ategataace ettatetgeg aceggt
<210> 1764
<211> 118
<212> PRT
<213> Homo sapiens
<400> 1764
Ala Arg Arg Gly Arg Asp Val Glu Arg Ala Leu Thr Arg Phe Met Ala
                                    10
                 5
Lys Thr Gly Glu Thr Gln Ser Leu Phe Lys Asp Asp Val Ser Thr Phe
                                 25
            20
Pro Leu Ile Ala Ala Arg Pro Phe Thr Ile Pro Tyr Leu Thr Ala Leu
                             40
Leu Pro Ser Glu Leu Glu Met Gln Gln Met Glu Glu Thr Asp Ser Ser
                                             60
Glu Gln Asp Glu Gln Thr Asp Thr Glu Asn Leu Ala Leu His Ile Ser
                                         75
                     70
Met Glu Asp Ser Gly Ala Glu Lys Glu Asn Thr Ser Val Leu Gln Gln
                 85
Asn Pro Ser Leu Ser Gly Ser Arg Asn Gly Glu Glu Asn Ile Ile Asp
                                 105
Asn Pro Tyr Leu Arg Pro
        115
<210> 1765
<211> 357
<212> DNA
<213> Homo sapiens
<400> 1765
eggeegeatt ettegtgaet ggegteeege egeeggtgea aaagtgteag gaaataceag
tcatgactat gtttagccgc acctetetge agtatgcgat egttetggca gegetgggeg
gtgccggtct ggcgctctgg gccatgtcga gtgcgacgga ggccaatcag gcggaaattg
cccaggccag gccaggcatt attgcggcgg cgcgcggtgt cgtggatgtc gagggcggcc
tgctgcggct ctccacccag cgcgacgggg tgattcagga tgtgccggtg aaggaaggac
agegggteaa ageeggegat atectegeeg egetegacaa tegeegegaa etgateg
 357
```

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<210> 1766
<211> 98
<212> PRT
<213> Homo sapiens
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Met Thr Met Phe Ser Arg Thr Ser Leu Gln Tyr Ala Ile Val Leu Ala
Ala Leu Gly Gly Ala Gly Leu Ala Leu Trp Ala Met Ser Ser Ala Thr
                                25
Glu Ala Asn Gln Ala Glu Ile Ala Gln Ala Arg Pro Gly Ile Ile Ala
                            40
Ala Ala Arg Gly Val Val Asp Val Glu Gly Gly Leu Leu Arg Leu Ser
                        55
Thr Gln Arg Asp Gly Val Ile Gln Asp Val Pro Val Lys Glu Gly Gln
Arg Val Lys Ala Gly Asp Ile Leu Ala Ala Leu Asp Asn Arg Arg Glu
                                    90
Leu Ile
<210> 1767
<211> 297
<212> DNA
<213> Homo sapiens
<400> 1767
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ceggecaaca egecaggetg ettgaegeeg ecagecaace egacgaaege eccaecaaga
acgagecega gecateceég gecaateaac gecagaegta tégecacaac gagtgegaeg
agggacaaac ccacctggag tccgtcgttg tgcatgcccc ccaccacgct caacgtcgtc
aatggacage acacegecag ceagagggea tgateeggat eggtteegge gtagegn
297
 <210> 1768
 <211> 73
 <212> PRT
 <213> Homo sapiens
 <400> 1768
Met Pro Thr Pro Ala Asn Thr Pro Gly Cys Leu Thr Pro Pro Ala Asn
                                     10
 Pro Thr Asn Ala Pro Pro Arg Thr Ser Pro Ser His Pro Arg Pro Ile
                                 25
             20
 Asn Ala Arg Arg Met Ala Thr Thr Ser Ala Thr Arg Asp Lys Pro Thr
                             40
 Trp Ser Pro Ser Leu Cys Met Pro Pro Thr Thr Leu Asn Val Val Asn
                         55
 Gly Gln His Thr Ala Ser Gln Arg Ala
```

70 65 <210> 1769 <211> 474 <212> DNA <213> Homo sapiens <400> 1769 caccatgctg geteggtteg aegeattegg gtgggtgagt etgttetegt caeegaeggg cagggtcatg ccgttcgtgg ccctgccatt gaggtgacga aagggtcagt tagcgtcgag acceptigaga tectecatae tecegegace aegeategat gggtegeegt ceaggeatig ccgaagtccg atagagctga gctggcggtg gcgaccctca ccgagatggg agttcacgaa atcetegeet ggeaggetga teggageate gtgegatgga agggegaeaa geaageeaag ggegtegega ggtggeaage ggetgeeegt gaggeeacca aacagteteg aegttttett gtgccacagg tagaactagc gcaaacccgt gaagttgtta agcggatttg caatgcccag geegeetaeg ttttgeaega gteggeeagt gaacegetgg tgeateagga gete <210> 1770 <211> 158 <212> PRT <213> Homo sapiens <400> 1770 His His Ala Gly Ser Val Arg Arg Ile Arg Val Gly Glu Ser Val Leu 10 1 Val Thr Asp Gly Gln Gly His Ala Val Arg Gly Pro Ala Ile Glu Val 25 Thr Lys Gly Ser Val Ser Val Glu Thr Val Glu Ile Leu His Thr Pro 40 Ala Thr Thr His Arg Trp Val Ala Val Gln Ala Leu Pro Lys Ser Asp 55 Arg Ala Glu Leu Ala Val Ala Thr Leu Thr Glu Met Gly Val His Glu 70 Ile Leu Ala Trp Gln Ala Asp Arg Ser Ile Val Arg Trp Lys Gly Asp 90 Lys Gln Ala Lys Gly Val Ala Arg Trp Gln Ala Ala Arg Glu Ala 105 100 Thr Lys Gln Ser Arg Arg Phe Leu Val Pro Gln Val Glu Leu Ala Gln 120 125 Thr Arg Glu Val Val Lys Arg Ile Cys Asn Ala Gln Ala Ala Tyr Val 140 135 Leu His Glu Ser Ala Ser Glu Pro Leu Val His Gln Glu Leu 155 150 <210> 1771 <211> 287

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<212> DNA
<213> Homo sapiens
<400> 1771
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taataacagc gggtgtcgca gaggaagaag cctgggagaa tggaagtcag ggaaggagag
caacaggett eteactetgt gecatgagea tgtgetagee atggagaeae tetgeatgtt
acctagaact gctgattcat tgctctggaa ttattcagct attcaagacc cagtgaaata
cagcaagcag ctttcattca tacacacaca tgtgcatcca tgtgcac
287
<210> 1772
<211> 93
<212> PRT
<213> Homo sapiens
<400> 1772
Met Gly Asn Ser Asn Thr Cys Lys Glu Leu Ser Leu Gln Val Tyr Ser
Asp Ile Asn Asn Ser Gly Cys Arg Arg Gly Arg Ser Leu Gly Glu Trp
                                25
Lys Ser Gly Lys Glu Ser Asn Arg Leu Leu Thr Leu Cys His Glu His
                                                 45
                            40
Val Leu Ala Met Glu Thr Leu Cys Met Leu Pro Arg Thr Ala Asp Ser
                                            60
Leu Leu Trp Asn Tyr Ser Ala Ile Gln Asp Pro Val Lys Tyr Ser Lys
                                        75
                    70
Gln Leu Ser Phe Ile His Thr His Val His Pro Cys Ala
                85
<210> 1773
<211> 393
<212> DNA
<213> Homo sapiens
<400> 1773
accggtgagt totacgtocc ggttaaccac ctcggaggtg aacaggcgca cotcgacgtc
ttcgattctc cgcttaacga gtacgcagcg atgggatttg agtacggcta ctctgttgcc
cgtccggatt ctctggtatt gtgggaagcc caattcggcg atttcaccaa cggtgcccag
acgatcatcg atgagttcat cgcctcggct ggctccaagt ggggtcagaa gtcgggagtc
gtgctgctgc tgccgcacgg ttacgaaggt caggggcctg atcactcgtc ggcccgtctg
gagegettee teaatetatg cagtgaagae getttggeeg tetgeeagee etegaceeeg
gcaagctaca gccatttatt gcgtcagcac gcg
393
```

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<210> 1774
<211> 131
<212> PRT
<213> Homo sapiens
<400> 1774
Thr Gly Glu Phe Tyr Val Pro Val Asn His Leu Gly Gly Glu Gln Ala
                5
                                    10
His Leu Asp Val Phe Asp Ser Pro Leu Asn Glu Tyr Ala Ala Met Gly
                                25
Phe Glu Tyr Gly Tyr Ser Val Ala Arg Pro Asp Ser Leu Val Leu Trp
                            40
Glu Ala Gln Phe Gly Asp Phe Thr Asn Gly Ala Gln Thr Ile Ile Asp
                                            60
                        55
Glu Phe Ile Ala Ser Ala Gly Ser Lys Trp Gly Gln Lys Ser Gly Val
                                        75
Val Leu Leu Pro His Gly Tyr Glu Gly Gln Gly Pro Asp His Ser
                                    90
                85
Ser Ala Arg Leu Glu Arg Phe Leu Asn Leu Cys Ser Glu Asp Ala Leu
                                105
            100
Ala Val Cys Gln Pro Ser Thr Pro Ala Ser Tyr Ser His Leu Leu Arg
                            120
        115
Gln His Ala
    130
<210> 1775
<211> 369
<212> DNA
<213> Homo sapiens
<400> 1775
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cgggagggca tcgctaggga ggggtggggc ggcccggctt cgatgcagcc atgtgggagg
gecaetetea gagaeeeeee geetteettg eeaeeeeeae eecagagggg aagetggage
tgggaggctg cagacccagg ccaaggtgtg gccagggctg gctttcttgg gaggctttga
geateetget teetggeeac ceagetetgg ggetgetgte aactettgat ttgtagacat
cactccagec tetggeetgt caccetgaac etcecccatg tetgtgtett ttetcactgg
360
aacaccggt
369
<210> 1776
<211> 59
<212> PRT
<213> Homo sapiens
<400> 1776
Arg Glu Gly Ile Ala Arg Glu Gly Trp Gly Gly Pro Ala Ser Met Gln
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Pro Cys Gly Arg Ala Thr Leu Arg Asp Pro Pro Pro Ser Leu Pro Pro
           20
                                25
Pro Pro Gln Arg Gly Ser Trp Ser Trp Glu Ala Ala Asp Pro Gly Gln
                            40
Gly Val Ala Arg Ala Gly Phe Leu Gly Arg Leu
    50
<210> 1777
<211> 370
<212> DNA
<213> Homo sapiens
<400> 1777
agettettat cactateett tagtgetttt tggtetacet tageggtaat getecateaa
gaatatggtt ttggtagtgc aactgcggga ttttttggcc tcgctggtgc cgccggagct
ttagcagcac cactgtccgg taaactaaca gataaacaag gaccgacacg ggtcacgcag
ctgggtgctg ccttagttgt cgtctctttc gcatctatgt tgttattgcc ttacttcagt
atcagtaccc aagttataat gattattgtt gctaccatag tgtttgactt tggtgttcag
geggeactta ttgctcatca aaccttagtg tataacattg actctaccgc tegtggacgc
360
cttaacgcgt
370 ·
<210> 1778
<211> 123
<212> PRT
<213> Homo sapiens
<400> 1778
Ser Phe Leu Ser Leu Ser Phe Ser Ala Phe Trp Ser Thr Leu Ala Val
Met Leu His Gln Glu Tyr Gly Phe Gly Ser Ala Thr Ala Gly Phe Phe
                                25
Gly Leu Ala Gly Ala Ala Gly Ala Leu Ala Ala Pro Leu Ser Gly Lys
Leu Thr Asp Lys Gln Gly Pro Thr Arg Val Thr Gln Leu Gly Ala Ala
                        55
Leu Val Val Val Ser Phe Ala Ser Met Leu Leu Pro Tyr Phe Ser
                    70
Ile Ser Thr Gln Val Ile Met Ile Ile Val Ala Thr Ile Val Phe Asp
                                    90
Phe Gly Val Gln Ala Ala Leu Ile Ala His Gln Thr Leu Val Tyr Asn
                                105
           100
Ile Asp Ser Thr Ala Arg Gly Arg Leu Asn Ala
                            120
<210> 1779
<211> 345
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<212> DNA
<213> Homo sapiens
<400> 1779
ccatgtgtgt gtatatgctc gtgtgtgatg gtatgtatat gtgtatatgt gnntatatgt
60
atacacgtgt gttatggtgt gtatatatgt atatacgtgt gtgtatatat atgtatatgg
120
gtatgtgtgt gcatgtgcgt atgggtgtgt atatgtgtat atatgtaggt gtgtatatct
gggaatatat gggtgtgtat atgtgtgtat aggtttttat atgtggggaa atatttaaac
ctgtgtatat tggaatgtgt gtgtatatgt gtgtatatat ggnggtgtgt atgtacatgt
atgtgtgtat atatgtgtgt atatacgtag gtgtgcatat gtgtg
345
<210> 1780
<211> 55
<212> PRT
<213> Homo sapiens
<400> 1780
Pro Cys Val Cys Ile Cys Ser Cys Val Met Val Cys Ile Cys Val Tyr
Val Xaa Ile Cys Ile His Val Cys Tyr Gly Val Tyr Ile Cys Ile Tyr
                                25
Val Cys Val Tyr Ile Cys Ile Trp Val Cys Val Cys Met Cys Val Trp
                                                45
        35
Val Cys Ile Cys Val Tyr Met
    50
<210> 1781
<211> 349
<212> DNA
<213> Homo sapiens
<400> 1781
nacgcgtcat gctaaatttt gccctttatg gcaacatttt cgtcagaaca agcggaagag
aagctactat ccaagtttca tacgccggtt aaaagaaaac atgatgatac gagatcatct
gatgtgaaca caacgcaaac tggttcaagc gccacgccca ttacacctgt accettactg
180
cccagtgcac aagagcccag ttatctttgc cagtggtgcg ctccccagac acgaaagcac
aagacatggg agggtgatge tattettata ttgcatggaa ataaaactae ttgttegeta
cgatccgcac atgatggcag catgctagtg acgaatgctg ccttccgga
349
<210> 1782
<211> 107
<212> PRT
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<213> Homo sapiens

 A400> 1782

 Met Ala Thr Phe Ser Ser Glu Gln Ala Glu Glu Lys Leu Leu Ser Lys 1

 Phe His Thr Pro Val Lys Arg Lys His Asp Asp Thr Arg Ser Ser Asp 20

 Val Asn Thr Thr Gln Thr Gly Ser Ser Ala Thr Pro Ile Thr Pro Val 35

 Pro Leu Leu Pro Ser Ala Gln Glu Pro Ser Tyr Leu Cys Gln Trp Cys 50

 Ala Pro Gln Thr Arg Lys His Lys Thr Trp Glu Gly Asp Ala Ile Leu 65

 Ile Leu His Gly Asn Lys Thr Thr Cys Ser Leu Arg Ser Ala His Asp 90

 Gly Ser Met Leu Val Thr Asn Ala Ala Phe Arg 105

<210> 1783 <211> 1829 <212> DNA

<213> Homo sapiens

900

<400> 1783 gtgcacgact tcgacgccag cctctcgggc atcgggcagg aactgggcgc cggcgcttac agcatgagtg atgtottggc attgcccatt ttcaagcagg aagattccag cottccattg gatggtgaaa cagagcaccc accetttcag tatgtgatgt gtgctgcaac gtcaccagca gtaaaactgc atgatgaaac gcttacttat ttgaaccaag gtcagtcata tgaaattcgg atgctggata atcggaaaat gggtgatatg cctgagatca atggaaaatt agtaaagagc atcataaggg ttgtattcca tgacagacgg ctacaataca cagagcatca gcaacttgaa ggatggaagt ggaatcgccc aggagacaga cttcttgatt tagatattcc aatgtctgtg ggaataattg acacaaggac gaatccaggc cagttaaatg cggttgaatt tctgtgggac 480 ccagcaaaac gcacctctgc tttcattcag gtacactgca tcagcacaga atttactcca 540 cggaagcacg gaggtgaaaa gggagtgccc tttaggatcc aggttgacac ctttaagcag 600 aatgaaaatg gagaatacac agatcatcta cactcagcta gctgccaaat caaagttttt aagcctaaag gtgcagacag gaaacaaaaa actgaccgag agaagatgga gaagagaaca geteatgaaa aagaaaagta teageegtee tatgataeea caateeteae agagatgagg cttgagccta taattgaaga tgcagttgaa catgagcaga aanaagtcca gcaagcggac tttgccgcag actacggtga ttctctggca aagcgaggca gttgttctcc gtggcccgat

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geocecacag cetatgtgaa taacageeet teeccagege ceaettteae eteeccacag
cagagcactt gcagtgtccc agacagcaat tettetteec caaatcatca gggagatgga
1020
gettcacaga cetetggtga acaaattcag cettcageta egatecagga aacacageaa
tggctgctca aaaacagatt ctcttcctac acaagactgt tctctaattt ttcaggtgcc
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eggetetata atteaetgaa gteaaggteg gttagaceee gtttaaecat etatgtetge
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gagaatggca gtggggcacc ctatgtttat catgcaatct acttggaaga aatgattgcc
1380
tragaagttg ctrgaaaact tgrgctggtg tttaatatrc ctrtccarca aattaatrag
1440
1500
atttgttttt ccttttcaga ctggtattta cttttataca tgtaattgta gaactgtaga
 aaaattotgt gacototttt gaaaataott atgagaatca ttttcagaga gttgggaatc
 actttggaag aacttataac caagagtttc aggcatccta gtgataatat ggaatacaag
 ccaaggaaaa ctggcttagc ctcccccag ccctttagga tgcagccaat cactggggca
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 1800
 cttttgtcta ttatttgatg actaattta
 1829
 <210> 1784
 <211> 514
 <212> PRT
 <213> Homo sapiens
 <400> 1784
 Val His Asp Phe Asp Ala Ser Leu Ser Gly Ile Gly Gln Glu Leu Gly
                                    10
  1
 Ala Gly Ala Tyr Ser Met Ser Asp Val Leu Ala Leu Pro Ile Phe Lys
                                 25
 Gln Glu Asp Ser Ser Leu Pro Leu Asp Gly Glu Thr Glu His Pro Pro
                             40
 Phe Gln Tyr Val Met Cys Ala Ala Thr Ser Pro Ala Val Lys Leu His
                                            60
                         55
 Asp Glu Thr Leu Thr Tyr Leu Asn Gln Gly Gln Ser Tyr Glu Ile Arg
                     70
  Met Leu Asp Asn Arg Lys Met Gly Asp Met Pro Glu Ile Asn Gly Lys
                                     90
                 85
  Leu Val Lys Ser Ile Ile Arg Val Val Phe His Asp Arg Arg Leu Gln
                                 105
              100
  Tyr Thr Glu His Gln Gln Leu Glu Gly Trp Lys Trp Asn Arg Pro Gly
```

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120
Asp Arg Leu Leu Asp Leu Asp Ile Pro Met Ser Val Gly Ile Ile Asp
                                        140
                   135
Thr Arg Thr Asn Pro Gly Gln Leu Asn Ala Val Glu Phe Leu Trp Asp
                                    155
           150
Pro Ala Lys Arg Thr Ser Ala Phe Ile Gln Val His Cys Ile Ser Thr
                              170
Glu Phe Thr Pro Arg Lys His Gly Gly Glu Lys Gly Val Pro Phe Arg
         180
                             185
Ile Gln Val Asp Thr Phe Lys Gln Asn Glu Asn Gly Glu Tyr Thr Asp
                         200
His Leu His Ser Ala Ser Cys Gln Ile Lys Val Phe Lys Pro Lys Gly
                                         220
                      215
Ala Asp Arg Lys Gln Lys Thr Asp Arg Glu Lys Met Glu Lys Arg Thr
                                    235
                  230
Ala His Glu Lys Glu Lys Tyr Gln Pro Ser Tyr Asp Thr Thr Ile Leu
                                 250
              245
Thr Glu Met Arg Leu Glu Pro Ile Ile Glu Asp Ala Val Glu His Glu
                              265
Gln Lys Xaa Val Gln Gln Ala Asp Phe Ala Ala Asp Tyr Gly Asp Ser
                          280
Leu Ala Lys Arg Gly Ser Cys Ser Pro Trp Pro Asp Ala Pro Thr Ala
                      295
                                         300
Tyr Val Asn Asn Ser Pro Ser Pro Ala Pro Thr Phe Thr Ser Pro Gln
                                     315
        310
Gln Ser Thr Cys Ser Val Pro Asp Ser Asn Ser Ser Ser Pro Asn His
                   330
Gln Gly Asp Gly Ala Ser Gln Thr Ser Gly Glu Gln Ile Gln Pro Ser
                           <sup>'</sup> 345
Ala Thr Ile Gln Glu Thr Gln Gln Trp Leu Leu Lys Asn Arg Phe Ser
                         360
Ser Tyr Thr Arg Leu Phe Ser Asn Phe Ser Gly Ala Asp Leu Leu Lys
                     375
Leu Thr Lys Glu Asp Leu Val Gln Ile Cys Gly Ala Ala Asp Gly Ile
                                     395
                 390
Arg Leu Tyr Asn Ser Leu Lys Ser Arg Ser Val Arg Pro Arg Leu Thr
                                 410
              405
Ile Tyr Val Cys Arg Glu Gln Pro Ser Ser Thr Val Leu Gln Gly Gln
                             425
           420
Gln Gln Ala Ala Ser Ser Ala Ser Glu Asn Gly Ser Gly Ala Pro Tyr
                          440
Val Tyr His Ala Ile Tyr Leu Glu Glu Met Ile Ala Ser Glu Val Ala
                                        460
                      455
Arg Lys Leu Ala Leu Val Phe Asn Ile Pro Leu His Gln Ile Asn Gln
                                     475
                   470
Val Tyr Arg Gln Gly Pro Thr Gly Ile His Ile Leu Val Ser Asp Gln
                                  490
Val Asn Gln Ile Ile Cys Phe Ser Phe Ser Asp Trp Tyr Leu Leu
                              505
Tyr Met
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<210> 1785 <211> 381

<212> DNA

<213> Homo sapiens

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<400> 1785
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actageggea acacaggeat tggactggee tttatggetg etgecaaggg etacaaactt
acactcacaa tgcctgcctc catgagcatg gagaggagga tcatattgaa ggcttttggt
gctgaacttg tccttactga cccactcttg ggaatgaaag gagctgtcaa gaaagcggaa
gagatacaag caaagacacc caactegtac atcettcaac aatttgaaaa tecagetaac
ccaaagattc actatgagac tactgggcct gaaatctgga aagctacagc aggaaaaatt
gatggccttg tatctggtat c
381
<210> 1786
<211> 127
<212> PRT
<213> Homo sapiens
<400> 1786
Ile Thr Asp Ala Glu Glu Lys Gly Leu Ile Thr Pro Gly Val Ser Val
Leu Ile Glu Pro Thr Ser Gly Asn Thr Gly Ile Gly Leu Ala Phe Met
                                25
Ala Ala Lys Gly Tyr Lys Leu Thr Leu Thr Met Pro Ala Ser Met
                            40
Ser Met Glu Arg Arg Ile Ile Leu Lys Ala Phe Gly Ala Glu Leu Val
                        55
Leu Thr Asp Pro Leu Leu Gly Met Lys Gly Ala Val Lys Lys Ala Glu
                    70
                                        75
Glu Ile Gln Ala Lys Thr Pro Asn Ser Tyr Ile Leu Gln Gln Phe Glu
                85
Asn Pro Ala Asn Pro Lys Ile His Tyr Glu Thr Thr Gly Pro Glu Ile
                                105
Trp Lys Ala Thr Ala Gly Lys Ile Asp Gly Leu Val Ser Gly Ile
<210> 1787
<211> 294
<212> DNA
<213> Homo sapiens
<400> 1787
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agggtcacct aacaaggaga tgagaacaaa ctttaaatct atctctctaa ggaatttgga
cttcgggttt ttaaggttta gaatgggcca aaacatggac attattgatt ggtcaaagag
180
```

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tacagggtca tggaacctgg agatgaaaaa gccatattct catgctgatc ctgttcctct
gtggaaggtc ttcaaattgg ttgccggaat aaaagatctg tcaaacatct tagg
294
<210> 1788
<211> 91
<212> PRT
<213> Homo sapiens
<400> 1788
Met Pro Arg His Gln Val Ala Ala Glu Lys Asp Leu Ile Val Gly Ser
Pro Asn Lys Glu Met Arg Thr Asn Phe Lys Ser Ile Ser Leu Arg Asn
                                25
Leu Asp Phe Gly Phe Leu Arg Phe Arg Met Gly Gln Asn Met Asp Ile
Ile Asp Trp Ser Lys Ser Thr Gly Ser Trp Asn Leu Glu Met Lys Lys
                        55
Pro Tyr Ser His Ala Asp Pro Val Pro Leu Trp Lys Val Phe Lys Leu
                    70
Val Ala Gly Ile Lys Asp Leu Ser Asn Ile Leu
                85
<210> 1789
<211> 353
<212> DNA
<213> Homo sapiens
<400> 1789
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gcaggcacac atgcacacac gcgcgcgcac acgcacacac acccccagcc cggaccggcc
gacetgetee ceggggtete teeegeagge aggteteete geegagtete egaaaagggg
240
cggtcgtggc ggccctggcg cccagctggg caacgcttcg tggtatctca ccgcttctct
ctgttgtgcc cagcgccccg actgaagatc cggatcttca gtccctggcg cgc
353
<210> 1790
<211> 105
<212> PRT
<213> Homo sapiens
<400> 1790
Met His Thr Pro Ser Thr Tyr Ser His Thr Gln Thr Cys His Thr Pro
                                    10
Pro Ser Pro His Thr Arg Thr Arg Pro Pro Pro Leu Ala Gly Thr His
Ala His Thr Arg Ala His Thr His Thr His Pro Gln Pro Gly Pro Ala
```

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35
                            40
                                                 45
Asp Leu Leu Pro Gly Val Ser Pro Ala Gly Arg Ser Pro Arg Arg Val
                        55
Ser Glu Lys Gly Arg Ser Trp Arg Pro Trp Arg Pro Ala Gly Gln Arg
                    70
Phe Val Val Ser His Arg Phe Ser Leu Leu Cys Pro Ala Pro Arg Leu
                85
Lys Ile Arg Ile Phe Ser Pro Trp Arg
            100
<210> 1791
<211> 355
<212> DNA
<213> Homo sapiens
<400> 1791
aaatttcagt tagagattag ggaaaataaa gatgttattt tttcccatcc tagtttacag
acccccaga aacccactca tggattctcc cgagtctttg gacctggctc agacaccctt
gctttggatc aagccaatgc atqtatcccc taacacaccc atgctttatg tggtccctgc
ccctccctgc tcaggggact gcttgttaac ttcattgggt tggggacata tatattatag
gagagagaca gagaaaaaga aagagaggaa atgttattct ccttgtctgt atctgtatct
ccactccgat teccattece tetgetgete tectetetet cetecettea egegt
<210> 1792
<211> 108
<212> PRT
<213> Homo sapiens
<400> 1792
Met Leu Phe Phe Pro Ile Leu Val Tyr Arg Pro Pro Arg Asn Pro Leu
Met Asp Ser Pro Glu Ser Leu Asp Leu Ala Gln Thr Pro Leu Leu Trp
            20
Ile Lys Pro Met His Val Ser Pro Asn Thr Pro Met Leu Tyr Val Val
                            40
Pro Ala Pro Pro Cys Ser Gly Asp Cys Leu Leu Thr Ser Leu Gly Trp
                        55
                                            60
Gly His Ile Tyr Tyr Arg Arg Glu Thr Glu Lys Lys Lys Glu Arg Lys
                    70
                                        75
Cys Tyr Ser Pro Cys Leu Tyr Leu Tyr Leu His Ser Asp Ser His Ser
Leu Cys Cys Ser Pro Leu Ser Pro Pro Phe Thr Arg
            100
                                105
<210> 1793
<211> 510
<212> DNA
<213> Homo sapiens
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tgggttccag cccgtagatg accttggcct gggaggcctt ccgaaggcca cacccatatc

<400> 1793

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agtcagccag accettagca aacaccatag gggtcatete aatetettet ecaactteae
cttcttctct ggagatgaat cctgacaaca cctcagggct gaggcagaag tcggtggagg
ccgagccgtg ctcattgtgg atggtgcacc gatacacacc gcagtctacg ggggaggcct
300
gcacgatggc caaggccgcc ggcccctcat cccctgcgct cctgcccacc tcgcccactg
ggcgctgatc cttggcccat gtcaagactg agtcactaag aatgttgaaa aactggcacc
420
acagetteag getaceggag geateaggaa actgeteeac eegaatette eggateacet
gtggggcttt cagcaggtct ttggctttcc
510
<210> 1794
<211> 116
<212> PRT
<213> Homo sapiens
<400> 1794
Met Thr Leu Ala Trp Glu Ala Phe Arg Arg Pro His Pro Tyr Pro Pro
                                    10
Pro Arg Ser Ser Ser Leu Thr Ser Arg Pro Lys Ser Leu Ser Pro Gln
            20
                                25
Gln Pro Glu Ser Ala Arg Pro Leu Ala Asn Thr Ile Gly Val Ile Ser
                            40
Ile Ser Ser Pro Thr Ser Pro Ser Ser Leu Glu Met Asn Pro Asp Asn
                                            60
                        55
Thr Ser Gly Leu Arg Gln Lys Ser Val Glu Ala Glu Pro Cys Ser Leu
                                        75
                    70
Trp Met Val His Arg Tyr Thr Pro Gln Ser Thr Gly Glu Ala Cys Thr
                                    90
                85
Met Ala Lys Ala Ala Gly Pro Ser Ser Pro Ala Leu Leu Pro Thr Ser
            100
Pro Thr Gly Arg
       115
<210> 1795
<211> 386
<212> DNA
<213> Homo sapiens
<400> 1795
ctatgetetg agteacttet ecaageatte ettetette tteetteeet gggetgatea
tttcaagaag tcctacattc cagaaaactt gagaggtgct tcttctctgg aagccccttt
120
```

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tottttctgt gagctcaggg agcattctac atacctcagc tgtgtctgct atcttttgct
taattatcaa tettteeata taaacagtaa aggaccacag titatteate agatteecca
tccaaacctg cacctgcata cataaacgca ctggataaat gtaccgcagt agacagaggc
tctccaggtt gagagctcca tgagggcacc aatttttgtc tgtttagctg tgtcctcaaa
gcaaggaagg gttgatccgg tctaga
386
<210> 1796
<211> 86
<212> PRT
<213> Homo sapiens
<400> 1796
Met Gln Val Gln Val Trp Met Gly Asn Leu Met Asn Lys Leu Trp Ser
1
                                     10
Phe Thr Val Tyr Met Glu Arg Leu Ile Ile Lys Gln Lys Ile Ala Asp
            20
Thr Ala Glu Val Cys Arg Met Leu Pro Glu Leu Thr Glu Lys Lys Arg
Gly Phe Gln Arg Arg Ser Thr Ser Gln Val Phe Trp Asn Val Gly Leu
                        55
                                             60
Leu Glu Met Ile Ser Pro Gly Lys Glu Glu Gln Lys Gly Met Leu Gly
                    70
                                         75
                                                             80
Glu Val Thr Gln Ser Ile
                85
<210> 1797
<211> 348
<212> DNA
<213> Homo sapiens
<400> 1797
aagetteact atgttgeeca tteeatggge ggegtgetgg tgegtgaeet getggeggae
cggaatttgc cgatgtcatt gatcaggtca tctgtctggg ctcgccgcag cagggctcgc
gtgccgctaa tttgttggcg ccatttgctg gcggcgcatc cgtcaaatgg tgtatcacag
cgactatgtg atgccgcttg cgcccacgcc cggcagegog cgttggagcg ccatcaactc
acagatggac aacctggtgt tgccggtgac ctcggcaatt ttaccgggaa tgacccatgt
ggeggtggat tacctggggc attgttcgtt attgtacagc ccacgcgt
348
<210> 1798
<211> 108
<212> PRT
<213> Homo sapiens
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<400> 1798
Met Gly Gly Val Leu Val Arg Asp Leu Leu Ala Asp Arg Asn Leu Pro
Met Ser Leu Ile Arg Ser Ser Val Trp Ala Arg Arg Ser Arg Ala Arg
                                25
Val Pro Leu Ile Cys Trp Arg His Leu Leu Ala Ala His Pro Ser Asn
Gly Val Ser Gln Arg Leu Cys Asp Ala Ala Cys Ala His Ala Arg Gln
Arg Ala Leu Glu Arg His Gln Leu Thr Asp Gly Gln Pro Gly Val Ala
                    70
Gly Asp Leu Gly Asn Phe Thr Gly Asn Asp Pro Cys Gly Gly Leu
               85
                                    90
Pro Gly Ala Leu Phe Val Ile Val Gln Pro Thr Arg
           100
<210> 1799
<211> 366
<212> DNA
<213> Homo sapiens
<400> 1799
acgegtegee teetgetggt egggatttte ettgetgtag ttaaccaaac caceggegte
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togattattt cagaggtggc taatggagtc atgtctgtta ttggtgccgc tgcaggcttg
tggctcatcg aacggtttga tcgtcgtcac ctgcttatct tcgatgtcac ggcggtcggt
gtgtgtctcc ttggtattgc ggctactttc gggctggcaa ttgctcctca tgtgggtcaa
ggggtaccga agtgggcgcc tattctcgtg ctcgtcctga tgagtatctt catgcttatc
360
gtgcac
366
<210> 1800
<211> 122
<212> PRT
<213> Homo sapiens
<400> 1800
Thr Arg Arg Leu Leu Leu Val Gly Ile Phe Leu Ala Val Val Asn Gln
Thr Thr Gly Val Asn Thr Val Met Tyr Tyr Ala Pro Lys Val Leu Glu
                                25
Phe Ala Gly Met Ser Thr Gln Ala Ser Ile Ile Ser Glu Val Ala Asn
Gly Val Met Ser Val Ile Gly Ala Ala Ala Gly Leu Trp Leu Ile Glu
                        55
Arg Phe Asp Arg Arg His Leu Leu Ile Phe Asp Val Thr Ala Val Gly
                                        75
                    70
Val Cys Leu Leu Gly Ile Ala Ala Thr Phe Gly Leu Ala Ile Ala Pro
```

```
90
His Val Gly Gln Gly Val Pro Lys Trp Ala Pro Ile Leu Val Leu Val
                                105
Leu Met Ser Ile Phe Met Leu Ile Val His
      115
<210> 1801
<211> 597
<212> DNA
<213> Homo sapiens
<400> 1801
aatttctcct teggtgacta cttcaagaac gaggccattc agtacgcatg ggagctcgtc
actaagccgg cagaacaggg cggattgggt ttcgatcctg ccagcatctg ggtgacggtc
cttggacctg ggtttcaccc tgactatccg gagggcgaca ttgaggcgcg cgaggcgtgg
cgtgctgcgg gtatccctga cgagcagatt cagggtcgct cccttaagga caactactgg
catatggggg ttcccggccc cggcggcccg tgctcggaaa tctacatcga tcgtggccca
gcctatggtc ccgacggtgg tccagaagca gatgaggacc gttaccttga gatctggaac
360
ctegtatteg agacegagga teteteageg gtgcgcgcta aagatgaett cgacategca
ggeceattgc gcagecttaa catcgacact ggtgccggtc tcgaacgtat tgcctaccta
ctccagggcg tcgacaatat gtacgagact gaccaggtat tccctgtcat tgagaaagcg
tecgagatgt egggeaageg gtaeggegtt egecaegaeg aegaegteeg actaege
<210> 1802
<211> 199
<212> PRT
<213> Homo sapiens
<400> 1802
Asn Phe Ser Phe Gly Asp Tyr Phe Lys Asn Glu Ala Ile Gln Tyr Ala
                                    10
Trp Glu Leu Val Thr Lys Pro Ala Glu Gln Gly Gly Leu Gly Phe Asp
                                                    30
                                25
Pro Ala Ser Ile Trp Val Thr Val Leu Gly Pro Gly Phe His Pro Asp
Tyr Pro Glu Gly Asp Ile Glu Ala Arg Glu Ala Trp Arg Ala Ala Gly
Ile Pro Asp Glu Gln Ile Gln Gly Arg Ser Leu Lys Asp Asn Tyr Trp
His Met Gly Val Pro Gly Pro Gly Pro Cys Ser Glu Ile Tyr Ile
                                    90
Asp Arg Gly Pro Ala Tyr Gly Pro Asp Gly Gly Pro Glu Ala Asp Glu
            100
                                105
Asp Arg Tyr Leu Glu Ile Trp Asn Leu Val Phe Glu Thr Glu Asp Leu
```

```
115
                           120
Ser Ala Val Arg Ala Lys Asp Asp Phe Asp Ile Ala Gly Pro Leu Arg
                       135
                                           140
Ser Leu Asn Ile Asp Thr Gly Ala Gly Leu Glu Arg Ile Ala Tyr Leu
                    150
Leu Gln Gly Val Asp Asn Met Tyr Glu Thr Asp Gln Val Phe Pro Val
Ile Glu Lys Ala Ser Glu Met Ser Gly Lys Arg Tyr Gly Val Arg His
                               185
Asp Asp Asp Val Arg Leu Arg
        195
<210> 1803
<211> 708
<212> DNA
<213> Homo sapiens
<400> 1803
cccacaacga tggccgtcat ggtggatggg gaagtgcctg aggaggtcac acctaaggac
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tategeggeg aggecatega gaagatgteg atggagggte geatgaegat etgeaatatg
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egeactetge gtactgaega egatgegaec tittgaegetg agatecatgt ggaegeeteg
aatotogooc cottogttac otggggtacc aaccoggggc agggatoccc cottaggoggt
480
catggatttg accorgacga gateggttcc eggtttgctg acatetttcg caataactet
gegaacaacg gettgttact ggetcaggtt gateceaagg tegteggaga gttgtgggae
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cttccgggtc gcacgaccta cccgttccat attgatgacg tcacgcgt
708
<210> 1804
<211> 236
<212> PRT
<213> Homo sapiens
<400> 1804
Pro Thr Thr Met Ala Val Met Val Asp Gly Glu Val Pro Glu Glu Val
Thr Pro Lys Asp Leu Ile Leu Ala Leu Ile Ser Glu Ile Gly Thr Gly
                               25
Gly Gly Gln Gly His Met Val Glu Tyr Arg Gly Glu Ala Ile Glu Lys
```

45

40

35

```
Met Ser Met Glu Gly Arg Met Thr Ile Cys Asn Met Ser Ile Glu Trp
                        55
Gly Ala Arg Val Gly Met Val Ala Ser Asp Glu Thr Thr Phe Thr Tyr
                                        75
                    70
Leu Lys Asp Arg Pro His Ala Pro Arg Gly Ala Gln Trp Asp Lys Ala
                                    90
Val Ala Tyr Trp Arg Thr Leu Arg Thr Asp Asp Asp Ala Thr Phe Asp
                                105
            100
Ala Glu Ile His Val Asp Ala Ser Asn Leu Ala Pro Phe Val Thr Trp
                            120
Gly Thr Asn Pro Gly Gln Gly Ser Pro Leu Gly Gly Val Val Pro Ala
                        135
                                            140
Val Glu Asp Phe Glu Asp Glu Val Ala Arg Ser Ala Ala Phe Gly Val
                    150
                                        155
His Gly Phe Asp Pro Asp Glu Ile Gly Ser Arg Phe Ala Asp Ile Phe
                                    170
                165
Arg Asn Asn Ser Ala Asn Asn Gly Leu Leu Leu Ala Gln Val Asp Pro
                                                     190
            180
                                185
Lys Val Val Gly Glu Leu Trp Asp Phe Ala Glu Gln His Pro Gly Glu
                            200
Gln Leu Thr Leu Ser Leu Glu Asn Arg Thr Ile Asn Leu Pro Gly Arg
                        215
Thr Thr Tyr Pro Phe His Ile Asp Asp Val Thr Arg
                    230
225
<210> 1805
<211> 833
<212> DNA
<213> Homo sapiens
<400> 1805
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aaggagatet gtggtetggg cetgtegace tatttetetg geeegaaggt caaatggatt
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atggacactt gggtgctgtg gaacctgact ggcggtacta acggtggcgt gcacatcacc
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aacacgtacg gcaccggctg ettcatgctc atgaacacag gtgaggaggc catettetcc
gagaacggtc tgctgaccac cgtctgctac aagattggtg accagcccac cgtctatgcc
660
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```
ctggaaggtt cgatcgccgt cgctggatcg ctggtacagt ggctgcgcga caacctcaag
atgttcgaga ccgcccgca aatcgaagcc ctcgccaaca ccgtcgagga caatggtggc
geetaetttg tgeeggeett etetggeetg ttegegeegt aetggegtee gga
<210> 1806
<211> 277
<212> PRT
<213> Homo sapiens
<400> 1806
Xaa Ala Val Val Trp Asp Lys Asn Thr Gly Glu Pro Val Tyr Asn Ala
Ile Val Trp Gln Asp Thr Arg Thr Gln Lys Ile Cys Asn Glu Leu Ala
Gly Asp Lys Gly Ala Asp Arg Tyr Lys Glu Ile Cys Gly Leu Gly Leu
                            40
Ser Thr Tyr Phe Ser Gly Pro Lys Val Lys Trp Ile Leu Asp Asn Val
                        55
                                            60
Glu Gly Ala Arg Ala Arg Ala Glu Ala Gly Asp Leu Leu Phe Gly Asn
                   70
                                       75
Met Asp Thr Trp Val Leu Trp Asn Leu Thr Gly Gly Thr Asn Gly Gly
                     •
                                   90
Val His Ile Thr Asp Pro Thr Asn Ala Ser Arg Thr Met Leu Met Asp
                               105
Val Arg Lys Leu Gln Trp Asp Asp Ser Met Cys Glu Val Met Gly Ile
                           120
Pro Lys Ser Met Leu Pro Glu Ile Lys Ser Ser Ser Glu Ile Tyr Gly
                        135
Tyr Gly Arg Lys Asn Gly Leu Leu Ile Asp Thr Pro Ile Ser Gly Ile
                    150
                                       155
Leu Gly Asp Gln Gln Ala Ala Thr Phe Gly Gln Ala Cys Phe Gln Lys
                                   170
               165
Gly Met Ala Lys Asn Thr Tyr Gly Thr Gly Cys Phe Met Leu Met Asn
                               185
Thr Gly Glu Glu Ala Ile Phe Ser Glu Asn Gly Leu Leu Thr Thr Val
                           200
Cys Tyr Lys Ile Gly Asp Gln Pro Thr Val Tyr Ala Leu Glu Gly Ser
                       215
                                           220
Ile Ala Val Ala Gly Ser Leu Val Gln Trp Leu Arg Asp Asn Leu Lys
                                       235
                   230
Met Phe Glu Thr Ala Pro Gln Ile Glu Ala Leu Ala Asn Thr Val Glu
               245
                                  250
Asp Asn Gly Gly Ala Tyr Phe Val Pro Ala Phe Ser Gly Leu Phe Ala
           260
Pro Tyr Trp Arg Pro
       275
<210> 1807
<211> 420
<212> DNA
<213> Homo sapiens
```

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<400> 1807
nuntategge aaggtggteg aaatggetet tgactatgte aaeggtgaca egtgegeege
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acaggcacac cggtgcgtgg tggtctcaca ttccgagaag gccactacat atgcgaggcg
gtagctgaga ccggctcgtt ggtggctatg gatatggtag aagtcaaccc ccatcttgaa
aagcatgegg etgageagae gategeegtg ggttgtteee teattegtte ggegetgggg
gagacgette tgtaatgggt geatgatggg ceggtggtee atagecatge atagacaete
cgggcgctga tatgatgagt gacatagcac gtacgataaa tctcggtttt gagcacgcgt
420
<210> 1808
<211> 88
<212> PRT
<213> Homo sapiens
<400> 1808
His Val Arg Arg Asp Arg Pro Ile His Leu Ser Phe Asp Val Asp Ala
Met Asp Pro Ser Val Ala Pro Ser Thr Gly Thr Pro Val Arg Gly Gly
Leu Thr Phe Arg Glu Gly His Tyr Ile Cys Glu Ala Val Ala Glu Thr
                             40
Gly Ser Leu Val Ala Met Asp Met Val Glu Val Asn Pro His Leu Glu
                        55
Lys His Ala Ala Glu Gln Thr Ile Ala Val Gly Cys Ser Leu Ile Arg
                                         75
                    70
Ser Ala Leu Gly Glu Thr Leu Leu
                85
<210> 1809
<211> 340
<212> DNA
<213> Homo sapiens
<400> 1809
nnaccggtga tcgcatcggt gagcctcggc gcgatgcgcg tgttcgacct tcgccatcgc
cagaccggtg tcacgcatgc gtatcgcctc gggcatggca gcctcctcgt gatgcggggc
cccacccagg ccgaatggca gcatcgcgtg ccgaaagcgc cgggtgtgca gggcgagcgc
gtgaacctga cgtttcggcg cgtgatgccg gtcggtatgg gccggtaaca accggcgtcg
ccgaggtgcc cggatcgccg ggcgattcgc gccccgtttt cgcgattcat gcgcgatcga
tacgggcagg cggtcgcatg tgcggcacgt tgccgcacgn
340
```

```
<210> 1810
<211> 75
<212> PRT
<213> Homo sapiens
<400> 1810
Xaa Pro Val Ile Ala Ser Val Ser Leu Gly Ala Met Arg Val Phe Asp
Leu Arg His Arg Gln Thr Gly Val Thr His Ala Tyr Arg Leu Gly His
                                25
Gly Ser Leu Leu Val Met Arg Gly Pro Thr Gln Ala Glu Trp Gln His
Arg Val Pro Lys Ala Pro Gly Val Gln Gly Glu Arg Val Asn Leu Thr
                        55
Phe Arg Arg Val Met Pro Val Gly Met Gly Arg
                    70
<210> 1811
<211> 500
<212> DNA
<213> Homo sapiens
<400> 1811
nnacgcgtgc taggaatagc catggactca tcatcagata catgctggat ttatacttca
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caggtactgg aaaagaaggg cgatgcactg ctacacgcag gtcagctcat ggaggccgtc
gagtgctatg ctcaggccca gacaccggcc tttgaacagg ttgtgctttc tttgatggac
300
gtetgtgccg acaaggcatt gcgtcgatat gtcagactgc gtctcgacaa gatgccgaaa
caagetegeg tgeetegtet catgetgget acttggetea ttgaattgta tgtggeegee
attcaagege atgaacecae etcegaacat tatcagacae ttttgetgga ageccaggag
acacttgagc ggcatcatga
500
<210> 1812
<211> 166
<212> PRT
<213> Homo sapiens
<400> 1812
Xaa Arg Val Leu Gly Ile Ala Met Asp Ser Ser Ser Asp Thr Cys Trp
                                    10
 1
Ile Tyr Thr Ser Leu Gly Gly Leu Tyr Glu Leu Leu Val Lys Asp Glu
                                25
Ala Arg Asp Met Trp His Leu Leu Leu Lys Arg Cys Asp Phe Glu Lys
```

```
40
 Ala Leu Thr Phe Cys Arg Asp Glu Thr Cys Arg Lys Gln Val Leu Glu
 Lys Lys Gly Asp Ala Leu Leu His Ala Gly Gln Leu Met Glu Ala Val
                                         75
 Glu Cys Tyr Ala Gln Ala Gln Thr Pro Ala Phe Glu Gln Val Val Leu
                 85
                                     90
 Ser Leu Met Asp Val Cys Ala Asp Lys Ala Leu Arg Arg Tyr Val Arg
             100
                                 105
 Leu Arg Leu Asp Lys Met Pro Lys Gln Ala Arg Val Pro Arg Leu Met
                             120
 Leu Ala Thr Trp Leu Ile Glu Leu Tyr Val Ala Ala Ile Gln Ala His
                         135
                                             140
 Glu Pro Thr Ser Glu His Tyr Gln Thr Leu Leu Glu Ala Gln Glu
                     150
 Thr Leu Glu Arg His His
                 165
 <210> 1813
 <211> 426
 <212> DNA
 <213> Homo sapiens
<400> 1813
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gtcctgaggg gtggcagtga cctggtaggg gtgcctgcgg cgtcgcggct tgcgatcgct
ggttctcggg gatgactctc ggatgaatat agatctgcta agacgtcatt agattcgctt
ggcgcttggt tgggaacggg tgtgaagcag ccttctgatg gatgtatttt tgcqttqttq
240
aataaggttt caatattaat tgaatatggc gctagatgct ggtttaggat cagttgacgt
cegetgtaga tectecetat ggteattetg gggecaggeg ettegecage tggecatege
aacaatggtg tggcgaaggg ttatgaggtg agtatggctg agcaagtcgt tggacaggcg
420
tctaca
426
<210> 1814
<211> 108
<212> PRT
<213> Homo sapiens
<400> 1814
Met Thr Ile Gly Arg Ile Tyr Ser Gly Arg Gln Leu Ile Leu Asn Gln
1
                                    10
His Leu Ala Pro Tyr Ser Ile Asn Ile Glu Thr Leu Phe Asn Asn Ala
            20
                               25
Lys Ile His Pro Ser Glu Gly Cys Phe Thr Pro Val Pro Asn Gln Ala
                            40
Pro Ser Glu Ser Asn Asp Val Leu Ala Asp Leu Tyr Ser Ser Glu Ser
```

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PCT/US00/08621

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55
His Pro Arg Glu Pro Ala Ile Ala Ser Arg Asp Ala Ala Gly Thr Pro
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Thr Arg Ser Leu Pro Pro Leu Arg Thr His Ser Ser Ile Glu Met Asn
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Pro Ile Gln Pro Trp Ile Pro Ile Thr Thr Ala Leu
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acc
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Pro Arg Ser Gln Ile Gly Gln Arg Asp Pro Pro Ala Ile Gly Lys Phe
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Gly Thr
<210> 1817
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120
cegegetect tattteacat getgeatetg egatggeeat tegeageagt tttttetett
gtgatgcagg tcgtggtagc agcgtatgga tcgtcactcg cacgccactt gccgcatgtg
tacagggcgt gacgcatgtc ccgtcaaact cgctcccaga cgtgtttgtt attgaccaac
ttccagcagc gataccccta atcaaactcc tgtgtgggcg gcgtgtcatg tactactgtc
acttecetga caaagaaate agegetgete tggetegaca gegaggeaeg egt
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Phe Asp Ala Ser His Ala Phe Glu Pro Thr Arg Asp Gly Thr Leu Gln
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Val Ile His Ala Lys Thr Trp Ile Pro Arg Ser Leu Phe His Met Leu
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His Leu Arg Trp Pro Phe Ala Ala Val Phe Ser Leu Val Met Gln Val
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Val Val Ala Ala Tyr Gly Ser Ser Leu Ala Arg His Leu Pro His Val
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Tyr Arg Ala
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343
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Gly Met Arg Thr Ile Thr Arg Gln Ile Gly Leu Gly Met Ile Gln Gln
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Met Asn Thr Val Cys Pro Glu Cys Lys Gly Ser Gly Glu Ile Ile Ser
                            40
Asp Lys Asp Lys Cys Pro Ser Cys Lys Gly Asn Lys Val Val Gln Glu
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                                            60
Lys Lys Val Leu Glu Val His Val Glu Lys Gly Met Gln His Asn Gln
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Lys Ile Val Phe Gln Gly Gln Ala Asp Glu Ala Pro Asp Thr Gly Thr
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Arg Met
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120
gcccgggaaa agttgctcgc caaggaggcc gcccagcgga tgacctagat tgtctactgc
tgtqtctgcc ctgtagtttg acggggaaga actgatgaac tcgtattgtg gttttccgaa
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285
<210> 1822
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<212> PRT
<213> Homo sapiens
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Ser Lys Ser Gln Ala Lys Thr Lys Ala Arg Glu Lys Leu Leu Ala Lys
Glu Ala Ala Gln Arg Met Thr
    50
                        55
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387
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            20
Gln Gln Lys Arg Asp Pro Ala Pro Cys Glu Gln Ile Tyr Met Pro Gln
Gly Lys Ala Gln Gly Phe Ser Val Leu Gln Asn Pro Arg Tyr Pro Tyr
                         55
His Phe Ile Leu Val Pro Thr Ala Pro Leu Ser Gly Ile Glu Ser Pro
                    70
                                         75
Leu Leu Leu Ala Gly Glu Arg Thr Asp Tyr Phe Gly Tyr Ala Trp Leu
                85
                                    90
Met Arg Tyr Arg Leu Ala Ala Glu Tyr Gly Gly Pro Val Pro Asp Asp
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Arg Leu Gly Met Ala Ile Asn Ser Ala Tyr Gly Arg Ser Gln Asn Gln
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                                                 125
Leu
<210> 1825
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<212> DNA
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<210> 1826
<211> 124
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<213> Homo sapiens
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Trp Ala Pro Arg His His Val Ala Gly Arg His Gly His Val Gly Val
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Val Pro Arg Tyr Ala Arg Pro Phe Leu Leu Ser Val Gly Leu Val Cys
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Leu Glu Arg Asp Ala Trp Pro Thr Gly Thr Arg Cys Ile Gly Gly Leu
Pro Val Gly His Ala Ala Gly Ser Gly Leu Arg Cys Val Ala Asp Pro
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Ser Cys Ser Tyr Val Thr Trp Leu Ile Ser Thr Arg
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180
tacgecegea tgatgegtae getggeegag aceggeaaeg getggatgae etteaaggae
240
aagtgcaacc gcgccagcaa ccagaccctg cgtccgggca acgtgatcca cctgtccaac
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345
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Leu Phe Gly Glu Ala Phe Glu Ala Ala Tyr Leu Gln Ala Glu Ala Gln
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Gly Lys Ala Asn Arg Thr Ile Ser Ala Arg Lys Leu Tyr Ala Arg Met
Met Arg Thr Leu Ala Glu Thr Gly Asn Gly Trp Met Thr Phe Lys Asp
                                        75
                    70
Lys Cys Asn Arg Ala Ser Asn Gln Thr Leu Arg Pro Gly Asn Val Ile
His Leu Ser Asn Leu Cys Thr Glu Ile Leu Glu Val Thr Ser Asn Asp
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Glu Thr Ala
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<210> 1829
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<212> DNA
<213> Homo sapiens
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720
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aaaccttacg 3840					
gaagacaact 3900					
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Asn Leu Ser Tyr Glu Val Asp Pro Glu Thr Val Asn Ala Gln Glu Asp
Ser Gln Met Pro Lys Glu Ser Ser Pro Asp Asp Val Gln Gln Val
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Val Phe Asp Leu Ile Cys Lys Val Val Ser Gly Leu Glu Val Glu Ser
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Ala Ser Val Thr Ser Gln Leu Glu Ile Glu Ala Met Pro Pro Lys Cys
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Ser Asp Ile Asp Pro Asp Glu Glu Thr Ile Lys Ile Glu Asp Asp Ser
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            100
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Leu Ser Val Ser Ala Glu Gly Gly His Glu Cys Val Ala Asn Gly Ile
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Ser Arg Asn Ser Ser Ser Pro Cys Ile Ser Gly Thr Thr His Thr Leu
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                                         155
                    150
His Asp Ser Ser Val Ala Ser Ile Glu Thr Lys Ser Arg Gln Arg Ser
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His Ser Ser Ile Gln Phe Ser Phe Lys Glu Lys Leu Ser Glu Lys Val
                                 185
Ser Glu Lys Glu Thr Ile Val Lys Glu Ser Gly Lys Gln Pro Gly Ala
                             200
Lys Pro Lys Val Lys Leu Ala Arg Lys Lys Asp Asp Lys Lys Lys
                                             220
                         215
 Ser Ser Asn Glu Lys Leu Lys Gln Thr Ser Val Phe Phe Ser Asp Gly
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225											_				
225		- T	(1)		230					23		_		_	240
Let	. ASI	i re	u GI	24		у гу:	r se	r Cy			ı Gı)	/ AS) IIe		r Glu
Tla	GI.	, Ca	r 1\c,				~ D~	~ C1.	25		_ *			25	
110	. 911	. Je.	26		c Gry	261	C PI	26		r Arg	l rAs	s sei			n Phe
Δen	T 7 a	a Wi			n There	- 61.	. u.		_				270		ı Tyr
no.		27		ם בי	u iyi	GII	280		r rei	п те	ııyı			ı rei	ı ıy r
Asn	Ser			፣ ጥኩነ	r T.en	T12				- 31-	. T] a	285			e Leu
	290			,	r Dec	299		Z F110	= 5e	LAIC	300		Ala	, TT6	e Leu
Lvs			n Pro	. T14	בום ב		_	lλer	. ה	. 116			- The		val
305			\		310		. va.	. Asi	1 71	315		. 1111	. 1111	. 561	320
		a Ala	a Tvz	Thi			ı T.eı	ı Sei	r T.e.ı			λer	ı T.e.ı	Tar	ı Ala
,				325					330			. ASI	. Dec	335	
Arg	His	Arc	ıle			Met	: G1v	/ Lvs			TVr	Ser	· His		Pro
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Val	Asp	Ser	Ası	His	. Asn	Phe	e Arc			Met	Tvr	· Ile			e Leu
	Ī	355					360				- 2 -	365			
Ile	Ser	Let	ı Cys	Leu	ı Tyr	Tyr	Met	Arg	Ser	His	Tyr			His	. Val
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Lys	Val	Thr	: Ala	Glr	a Asp	Leu	Ile	Gly	/ Asn	Arg	Asn	Met	Gln	Met	Met
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Ser	Ile	Glu	ı Ile	Leu	Thr	Leu	Leu	Phe	Thr	Glu	Leu	Ala	Lys	Val	Ile
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Glu	Ser	Ser			Gly	Phe	Pro	Ser	Phe	: Ile	Ser	Asp	Met	Leu	Ser
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Lys	Cys			Gln	Lys	Val			His	Cys	Leu	Leu	Ser	Ser	Ile
_,	_	435		_	_	•	440					445			
Phe			GIn	Lys	Trp			Glu	Lys	Met		Gly	Lys	Asn	Leu
17- 1	450		61	a 1	a 1	455			_	_	460				
465	Ala	vai	GIU	GIU	Gly	Pne	Ser	GIu	Asp		Leu	Ile	Asn	Phe	
	y e.z.	G) 11	Pho	N am	470 Asn	C1	C	m>	.	475		~ 1		_	480
GIU	ASP	Gru	FIIC	485		GIY	Ser	inr	490		Ser	GIn	Leu		_
Val	T.e.11	Gln	Δτα		Ile	W= 1	Lan	GI.			17-7	Mak	mb	495	
			500		110	V 4 1	Deu	505	urs	Arg	Val	met	510	iie	PIO
Glu	Glu	Asn		Thr	Gly	Phe	Asn		Val	Va 1	Sar	7.00		GI.	uic
		515			1		520		val	Vai	Ser	525	Deu	Gru	UTS
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His	Gln	His	Cys	Ala	Cys	Lys	Met	His	Pro		Trp	Ile	Gly	Leu	
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Thr	Ser	Thr	Leu	Pro	Tyr	Met	Gly	Lys	Val	Leu	Gln	Arg	Val	Val	Val
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Ala	Ile	Ile	His		Cys	Leu	Leu	Asp	Pro	Thr	Thr	Gln	Tyr	His	Gln
_	_		_	645					650					655	
Leu :	Leu	Val	Ser	Val	Asp	Gln	Lys	His	Leu	Pħe	Glu .	Ala	Arg	Ser	Gly .

			660					665					670		
Ile :	T. . 211	Ser	Tle	Leu	His	Met	Ile	Met	Ser	Ser	Val	Thr	Leu	Leu	Trp
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Ser.	Ala	Ser	Leu	Thr	Thr	Ile	Asn	Leu	Gly	Ala	Thr	Lys	Asn	Leu	Arg
705					710					715					120
Gln	Gln	Ile	Leu	Glu	Leu	Leu	Gly	Pro	Ile	Ser	Met	Asn	His	GIY	Vai
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His	Phe	Met	Ala	Ala	Ile	Ala	Phe	Val	Trp	Asn	GIu	Arg	Arg	GIII	ASII
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Lys	Thr	Thr	Thr	Arg	Thr	Lys		Ile	Pro	Ala	Ala	765	GIU	GIU	GIII
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785	_	•	T -	T	790	TAN	Sar	T.011	Glu		Cvs	Met	Leu	Gln	Phe
Ala	Lys	Asp	гÀ2	805	HIS	ьеu	PET	neu	810	•••	-7-			815	
Db -	m	71 -	The res	710	Gla	Δησ	Tle	Pro		Pro	Asn	Leu	Val	Asp	Ser
Pne	Tyr	Ald	820	116	GIII	~-9		825					830		
Tr.	7. J =	Ser	T.eu	Leu	Ile	Leu	Leu		Asp	Ser	Ile	Gln	Leu	Ser	Leu
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	850					855					860				
Met	Lys	Asn	Pro	Ser	Leu	Glu	Asn	Lys	Lys	Asp	Gln	Arg	Asp	Leu	Gln
066					870					875					000
Asp	Val	Thr	His	Lys	Ile	Val	Asp	Ala	Ile	Gly	Ala	Ile	Ala	Gly	ser
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Ser	Leu	Glu	Gln	Thr	Thr	Trp	Leu	Arg	Arg	Asn	Leu	GIU	910	Lys	PIO
			900					905		•	~1	C	_	T/a l	G) 11
Ser	Pro			Met	Val	Asp	Gly	Thr	ASR	Leu	GIU	925	ASP	Val	014
		915	_	_			920	Th-	פות	λcn	Tle		Pro	Ser	Val
Asp						Met	GIU	1111	ALG	, ASII	940				Val
_	930	••- 7			T 011	935	T.011	T.e.r	Ser	Glu			Ala	His	Leu
	Ser	vaı	HIS	Ald	950		שבע			955					960
945	200	Mat	17=1	Dhe	TVT	Ser	Asp	Glu	Lys	Glu	Arg	Val	Ile	Pro	Leu
				965					9/0					,,,	
T.evi	Val	Asn	Ile	Met	His	Tyr	Val	Val	Pro	Tyr	Leu	Arg	Asn	His	Ser
			000					985	ı				990		
Ala	His	Asn	Ala	Pro	Ser	туг	Arg	Ala	. Cys	Val	Gln	Leu	Leu	Ser	Ser
		005	•				- 100	D .				100	_		
Leu	Ser	Gly	Tyr	Gln	Tyr	Thr	Arg	Arg	Ala	Trp	Lys	Lys	Glu	Ala	Phe
		_				101	5				102	·			
Asp	Leu	Phe	Met	Asp	Pro	Ser	Phe	Phe	Gln	Met	. Asp	ALA	Ser	cys	Val 1040
	_				103	· Λ ·				103					2020
Asn	His	Trp	Arg	, Ala	Ile	Met	. Asp	Asn	Lev	ı Met	Thi	urs	ASP	105	Thr 5
				104					103	, ,					~
Thr	Phe	Arg			ı Met	Thr	Arg	val	. WTg	, val	. Ald	المتو	107	0	Ser
			106	50	_			106 Val	ر. 10	ים. ד	ı Glu	Gln			Met
Leu	Asr			a Ala	a Asr	Arg	108	. val	. 616			108	5		
	_	10	75 	_ •	1-	Dha	71=		Phe	. Sei	: Ser			Asp	Gln
Leu	Let	Lys	s Arg	a rer	1 AT									-	

1090

```
Tyr Gln Lys Tyr Leu Pro Asp Ile Gln Glu Arg Leu Val Glu Ser Leu
       1110
                         1115
 Arg Leu Pro Gln Val Pro Thr Leu His Ser Gln Val Phe Leu Phe Phe
              1125
                              1130
 Arg Val Leu Leu Arg Met Ser Pro Gln His Leu Thr Ser Leu Trp
           1140
                            1145
 Pro Thr Met Ile Thr Glu Leu Val Gln Val Phe Leu Leu Met Glu Gln
                       1160
                                         1165
 Glu Leu Thr Ala Asp Glu Asp Ile Ser Arg Thr Ser Gly Pro Ser Val
                     1175
                                     1180
Ala Gly Leu Glu Thr Thr Tyr Thr Gly Gly Asn Gly Phe Ser Thr Ser
               1190
                        1195
Tyr Asn Ser Gln Arg Trp Leu Asn Leu Tyr Leu Ser Ala Cys Lys Phe
              1205 1210
Leu Asp Leu Ala Leu Ala Leu Pro Ser Glu Asn Leu Pro Gln Phe Gln
                 1225
                                            1230
Met Tyr Arg Trp Ala Phe Ile Pro Glu Ala Ser Asp Asp Ser Gly Leu
                       1240
                                         1245
Glu Val Arg Arg Gln Gly Ile His Gln Arg Glu Phe Lys Pro Tyr Val
                    1255
                                     1260
Val Arg Leu Ala Lys Leu Leu Arg Lys Arg Ala Lys Lys Asn Pro Glu
1265 1270
                         1275
Glu Asp Asn Ser Gly Arg Thr Leu Gly Trp Glu Pro Gly His Leu Leu
                    1290
             1285
Leu Thr Ile Cys Thr Val Arg Ser Met Glu Gln Leu Leu Pro Phe Phe
         1300
                  1305 1310
Asn Val Leu Ser Gln Val Phe Asn Ser Lys Val Thr Ser Arg Cys Gly
      1315 1320
Gly His Ser Gly Ser Pro Ile Leu Tyr Ser Asn Ala Phe Pro Asn Lys
   1330 1335
                                     1340
Asp Met Lys Leu Glu Asn His Lys Pro Cys Ser Ser Lys Ala Arg Gln
1345 1350
                                  1355
Lys Ile Glu Glu Met Val Glu Lys Asp Phe Leu Glu Gly Met Ile Lys
             1365
                               1370
<210> 1831
<211> 508
<212> DNA
<213> Homo sapiens
<400> 1831
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geggtttgcc cgcccggaaa atccaaggtg gactattacg acaacgcact caaagggttc
atcctggagg ctcgaccttc aggtggcaaa accttttacc tgcgctatca cgacagccac
ggcaagetge gecaatgcaa gateggtgat getgetgegg teagetaega caaggeeegg
cagaaggcca tgcggttgcg ttggaaggtg gaatgggggg gcaatccatt ggaggagcgc
```

1095

1100

```
caageettge gtgeggtace gaccetggee gagtteatee gegagaeeta tgtgeegeae
360
atccacctgc accggaggaa ttttcagtcc acgctgagct tcctcaagtg ccatgtcctg
cegegetttg gagecaagea eetggaegaa ateaegaeca acatgetgge egaggeteae
caggatetge geacgaaggg etacgegt
508
<210> 1832
<211> 169
<212> PRT
<213> Homo sapiens
<400> 1832
Xaa His Glu Arg Arg Gly Arg Met Pro Ile Val Lys Leu Ser Ala Gln
                                    10
Phe Val Arg Glu Ala Val Cys Pro Pro Gly Lys Ser Lys Val Asp Tyr
            20
Tyr Asp Asn Ala Leu Lys Gly Phe Ile Leu Glu Ala Arg Pro Ser Gly
                            40
Gly Lys Thr Phe Tyr Leu Arg Tyr His Asp Ser His Gly Lys Leu Arg
                        55
Gln Cys Lys Ile Gly Asp Ala Ala Ala Val Ser Tyr Asp Lys Ala Arg
                                        75
                    70
Gln Lys Ala Met Arg Leu Arg Trp Lys Val Glu Trp Gly Gly Asn Pro
                                    90
                85
Leu Glu Glu Arg Gln Ala Leu Arg Ala Val Pro Thr Leu Ala Glu Phe
                                105
            100
Ile Arg Glu Thr Tyr Val Pro His Ile His Leu His Arg Arg Asn Phe
                                                125
                            120
Gln Ser Thr Leu Ser Phe Leu Lys Cys His Val Leu Pro Arg Phe Gly
                        135
Ala Lys His Leu Asp Glu Ile Thr Thr Asn Met Leu Ala Glu Ala His
                    150
Gln Asp Leu Arg Thr Lys Gly Tyr Ala
                165
<210> 1833
<211> 430
<212> DNA
<213> Homo sapiens
<400> 1833
acgcgtgcga tgttgaagga gcgcttcggc atcgggcatg cgacgctgca ggttgaactg
teeggtgeeg aggeagaega tgeegaggeg ggeggetget aagggtegee gtegtteagt
ggcgcaaagc ggcgatgatc gcgtcgaaca gcgttactcc agccagcggg ccaaccaaca
180
gcatcaccag gttgaaaccg atgatccacg ccgcgatgct ttctcggcgc gggtttggca
240
geggettggg eteggettee cagegtteeg geggeggeea gecattttgg aaategaega
300
```

```
acateteegg egeteetget gteaggeget gaaggtateg aaagteatge geegtgacaa
aggaagateg gegacacagg ageegaageg eegeegeetg caataagege gegegatege
aattgtcggn
430
<210> 1834
<211> 122
<212> PRT
<213> Homo sapiens
<400> 1834
Met Arg Arg Cys Arg Leu Asn Cys Pro Val Pro Arg Gln Thr Met Pro
Arg Arg Ala Ala Ala Lys Gly Arg Arg Arg Ser Val Ala Gln Ser Gly
                                 25
Asp Asp Arg Val Glu Gln Arg Tyr Ser Ser Gln Arg Ala Asn Gln Gln
                             40
His His Gln Val Glu Thr Asp Asp Pro Arg Arg Asp Ala Phe Ser Ala
Arg Val Trp Gln Arg Leu Gly Leu Gly Phe Pro Ala Phe Arg Arg Arg
                    70
                                         75
Pro Ala Ile Leu Glu Ile Asp Glu His Leu Arg Arg Ser Cys Cys Gln
                                    90
Ala Leu Lys Val Ser Lys Val Met Arg Arg Asp Lys Gly Arg Ser Ala
            100
                                 105
Thr Gln Glu Pro Lys Arg Arg Arg Leu Gln
        115
<210> 1835
<211> 677
<212> DNA
<213> Homo sapiens
<400> 1835
natactcaag gactttgacg gcacccgagc ccggttgctc cctgaggcca tcatgaaccc
cccagtggca ccctatgcta ctgtggcacc cagcacttta gcccacccc aggcccaggc
tetggeeege cageaggeee tgeageatge acagaeeetg geeeatgeee eteceeagae
gctgcagcac cctcagggta tcccgccacc ccaggcactg tcccaccctc agagcctcca
240
gcagcetcag ggcetgggce accetcagee catggeecaa acceaggget tggtecacee
300
teaggeeetg geteaceagg gtetecagea cececaeaat ecettgetge atggaggeeg
gaagatgcca gactcagatg cccccccgaa tgtgaccgtg tctacctcaa ctatcccct
420
ttcaatggcg gccactctgc agcacagcca gcctccggac ctgagtagca tcgtgcacca
gatcaaccag ttttgccaga cgagggcagg catcagcact acctcagtgt gtgagggcca
540
```

```
gategocaac decageecca tragregeag tergereate aargeaagea eeegggtgte
gacccacage gteeccacae caatgeette atgtgtggte aateccatgg ageacaecca
cgcggccacc gccgcgg
677
<210> 1836
<211> 140
<212> PRT
<213> Homo sapiens
<400> 1836
Gly His His Glu Pro Pro Ser Gly Thr Leu Cys Tyr Cys Gly Thr Gln
His Phe Ser Pro Pro Pro Gly Pro Gly Ser Gly Pro Pro Ala Gly Pro
                                25
Ala Ala Cys Thr Asp Pro Gly Pro Cys Pro Ser Pro Asp Ala Ala Ala
                            40
Pro Ser Gly Tyr Pro Ala Thr Pro Gly Thr Val Pro Pro Ser Glu Pro
Pro Ala Ala Ser Gly Pro Gly Pro Pro Ser Ala His Gly Pro Asn Pro
                                         75
Gly Leu Gly Pro Pro Ser Gly Pro Gly Ser Pro Gly Ser Pro Ala Pro
                                     90
                85
Pro Gln Ser Leu Ala Ala Trp Arg Pro Glu Asp Ala Arg Leu Arg Cys
                                 105
Pro Pro Glu Cys Asp Arg Val Tyr Leu Asn Tyr Pro Pro Phe Asn Gly
                             120
Gly His Ser Ala Ala Gln Pro Ala Ser Gly Pro Glu
    130
<210> 1837
<211> 564
<212> DNA
<213> Homo sapiens
<400> 1837
nntctagaac actctgcccc tgaatctgta ccgggattgt ttggcccgtc acgaactcgt
acggtcgata tcaatatcac tgggttttct tcacagtatt tacccgcccc ctatggacca
attgctgcgg acgtcaaaca aacctgggcg tgggacccac aggatctgac gattgtctca
acttetgetg atcacgacca taaceteega tatgeagtae ageatttegg egeaageeeg
acceegatee agtaacette gataacgega aageeggeae eecacataae teggntgtae
accgaagtcc ctgccaacgt tccatccgac ataggggagt taactaaccg aattatcaag
gggaaatcta cccccgtaac caaggccatc gcgattcaaa actggcttcg tgacagcgct
 cgattccatt acgacatcaa cgcacccgaa ggtgacggct atcaggtact ggaaaacttc
 480
```

ctgctgcaca cccaccgegg ttattgcatc catttcgcgg cgtcaatggc actcatggca

```
cgacttgaag gtattccgtc acgc
 564
 <210> 1838
 <211> 84
 <212> PRT
 <213> Homo sapiens
 <400> 1838
 Xaa Leu Glu His Ser Ala Pro Glu Ser Val Pro Gly Leu Phe Gly Pro
 1
 Ser Arg Thr Arg Thr Val Asp Ile Asn Ile Thr Gly Phe Ser Ser Gln
                                 25
 Tyr Leu Pro Ala Pro Tyr Gly Pro Ile Ala Ala Asp Val Lys Gln Thr
                             40
 Trp Ala Trp Asp Pro Gln Asp Leu Thr Ile Val Ser Thr Ser Ala Asp
His Asp His Asn Leu Arg Tyr Ala Val Gln His Phe Gly Ala Ser Pro
                     70
                                         75
                                                              80
Thr Pro Ile Gln
<210> 1839
<211> 300
<212> DNA
<213> Homo sapiens
<400> 1839
ncaatacggc tgaacaccgc tgatatcacc cgtactttcc ccgtcaacgg aaaattttcc
gaagttcagg caaaggctta tcaggcggtg ctggacgctg cagatgcggc atttaaggca
gccgttcctg gcaataaatt ccgcgacgtc catgctgcag cgatgaatgt tctcgcctcc
cgccttgagg actgggggct tatgccggtc agcgcgaagg tcgctctttc ggacgagggc
gggcaacacc gtcgttggat gccgcacggc accagccacc atctagggct ggatgtgcac
300
<210> 1840
<211> 100
<212> PRT
<213> Homo sapiens
<400> 1840
Xaa Ile Arg Leu Asn Thr Ala Asp Ile Thr Arg Thr Phe Pro Val Asn
Gly Lys Phe Ser Glu Val Gln Ala Lys Ala Tyr Gln Ala Val Leu Asp
Ala Ala Asp Ala Ala Phe Lys Ala Ala Val Pro Gly Asn Lys Phe Arg
Asp Val His Ala Ala Ala Met Asn Val Leu Ala Ser Arg Leu Glu Asp
```

```
60
                        55
Trp Gly Leu Met Pro Val Ser Ala Lys Val Ala Leu Ser Asp Glu Gly
                                        75
                   70
Gly Gln His Arg Arg Trp Met Pro His Gly Thr Ser His His Leu Gly
                                    90
Leu Asp Val His
            100
<210> 1841
<211> 330
<212> DNA
<213> Homo sapiens
<400> 1841
nnetecaaga aegteeegga gtggggeeee agggegeteg aaeteeeegg egggeeeggt
gtcgatccgg tggtcgagat cggcggtccc ggtacgctag cccaatcgat ggtcgccccg
120
cgcgtcggcg cccatgtcgc cttgatcggc gtgcttnacg gggattgtcg ggcggtgagg
acggcgctgc tgatgagcaa gaatctgcgc gtgcaagggc tgccggtcgg cagccgcgcg
cagcaactcg cgatgatcgc gggggtcgag gcgaacggca tccgtccgat cctcgaccag
catttcccgc tcgaaaatct ccccgacgcg
330
<210> 1842
<211> 110
<212> PRT
<213> Homo sapiens
<400> 1842
Xaa Ser Lys Asn Val Pro Glu Trp Gly Pro Arg Ala Leu Glu Leu Pro
                                     10
Gly Gly Pro Gly Val Asp Pro Val Val Glu Ile Gly Gly Pro Gly Thr
                                 25
Leu Ala Gln Ser Met Val Ala Pro Arg Val Gly Ala His Val Ala Leu
                             40
        35
Ile Gly Val Leu Xaa Gly Asp Cys Arg Ala Val Arg Thr Ala Leu Leu
Met Ser Lys Asn Leu Arg Val Gln Gly Leu Pro Val Gly Ser Arg Ala
                                         75
                    70
Gln Gln Leu Ala Met Ile Ala Gly Val Glu Ala Asn Gly Ile Arg Pro
                                     90
Ile Leu Asp Gln His Phe Pro Leu Glu Asn Leu Pro Asp Ala
                                 105
<210> 1843
<211> 473
 <212> DNA
 <213> Homo sapiens
<400> 1843
```

```
aagetttgge atetecagea aaagatgtge tatttaetga taccatcace atgaaggeea
 acagttttga gtccagatta acaccaagca ggttcatgaa agccttaagt tatgcatcat
 tagataaaga agatttattg agtcctatta atcaaaatac cctgcaacga tcttcctcag
 tgcggtccat ggtgtccagt gccacatatg ggggttcaga tgattacatt ggtcttgctc
 tcccggtgga tataaatgat atattccagg taaaggatat tccctatttt caqacaaaaa
 acataccacc acatgatgat cgaggtgcaa gagcatttgc ccatgatgca ggaggtcttc
 catctggaac tggaggtctt gtaaaaaatt cttttcactt gctacgacag cagatgagtc
 ttacggaaat aatgaattca atccattcag atgcctctcn cnnccncncc ccc
 473
 <210> 1844
<211> 141
<212> PRT
<213> Homo sapiens
<400> 1844
Met Lys Ala Asn Ser Phe Glu Ser Arg Leu Thr Pro Ser Arg Phe Met
                                     10
Lys Ala Leu Ser Tyr Ala Ser Leu Asp Lys Glu Asp Leu Leu Ser Pro
                                 25
Ile Asn Gln Asn Thr Leu Gln Arg Ser Ser Ser Val Arg Ser Met Val
        35
                             40
Ser Ser Ala Thr Tyr Gly Gly Ser Asp Asp Tyr Ile Gly Leu Ala Leu
                        55
Pro Val Asp Ile Asn Asp Ile Phe Gln Val Lys Asp Ile Pro Tyr Phe
                    70
                                         75
Gln Thr Lys Asn Ile Pro Pro His Asp Asp Arg Gly Ala Arg Ala Phe
                                    90
Ala His Asp Ala Gly Gly Leu Pro Ser Gly Thr Gly Gly Leu Val Lys
            100
                                105
Asn Ser Phe His Leu Leu Arg Gln Gln Met Ser Leu Thr Glu Ile Met
                            120
Asn Ser Ile His Ser Asp Ala Ser Xaa Xaa Xaa Pro
                        135
<210> 1845
<211> 390
<212> DNA
<213> Homo sapiens
<400> 1845
aagcttacga cgcctagctt tggagacctg aaccacttga tcagtgcaac aatgagtgga
gtgacttgct gcctccgctt cccggggcag ctcaactcgg accttcggaa acttgcagtg
aacctgattc cattccctcg cctgcacttt tttatggtcg gctttgcgcc actcacctcg
180
```

```
egtggetecc ageagtaceg tgeteteact gteectgage tgacceagea gatgtgggae
tecaagaaca tgatgtgtge tgetgaeeeg egteatggee getaeeteae agtatetgee
atgttccgtg gaaagatgag caccaaggag gtggacgagc agatgctgaa cgtgcagaac
aagaactett cetaettegt ggagtggate
390
<210> 1846
<211> 130
<212> PRT
<213> Homo sapiens
<400> 1846
Lys Leu Thr Thr Pro Ser Phe Gly Asp Leu Asn His Leu Ile Ser Ala
                                    10
1
Thr Met Ser Gly Val Thr Cys Cys Leu Arg Phe Pro Gly Gln Leu Asn
                                                     30
                                25
            20
Ser Asp Leu Arg Lys Leu Ala Val Asn Leu Ile Pro Phe Pro Arg Leu
                            40
His Phe Phe Met Val Gly Phe Ala Pro Leu Thr Ser Arg Gly Ser Gln
                                             60
Gln Tyr Arg Ala Leu Thr Val Pro Glu Leu Thr Gln Gln Met Trp Asp
                    70
Ser Lys Asn Met Met Cys Ala Ala Asp Pro Arg His Gly Arg Tyr Leu
                                                         95
                85
Thr Val Ser Ala Met Phe Arg Gly Lys Met Ser Thr Lys Glu Val Asp
                                 105
Glu Gln Met Leu Asn Val Gln Asn Lys Asn Ser Ser Tyr Phe Val Glu
                            120
        115
Trp Ile
    130
<210> 1847
<211> 343
<212> DNA
<213> Homo sapiens
<400> 1847
cageegtget tteetgegte aactegggaa eggetatate gegeagatee aacagtteea
tggctcgaag agtagtaaaa atatcaataa ctggcagage atcgcgtcaa gctggcgacc
etggeegeeg eegegttgge egateaegee atgttggage aggeetteea getgtteeag
1,80
caaaaaagtt geggacaate teetgeegga tggeteggtg ttegaettea gggagegega
tgcactgcac tacgtcgtct atgacctgga gccgctggtt caggcggccc tggcgggcaa
300
gecetaacgg tggcaactgg etgaettaca eegeceecae egn
343
```

<210> 1848

<211> 94 <212> PRT

```
<213> Homo sapiens
 <400> 1848
Met Ala Arg Arg Val Val Lys Ile Ser Ile Thr Gly Arg Ala Ser Arg
                                     10
Gln Ala Gly Asp Pro Gly Arg Arg Val Gly Arg Ser Arg His Val
             20
                                 25
Gly Ala Gly Leu Pro Ala Val Pro Ala Lys Lys Leu Arg Thr Ile Ser
                             40
Cys Arg Met Ala Arg Cys Ser Thr Ser Gly Ser Ala Met His Cys Thr
                         55
Thr Ser Ser Met Thr Trp Ser Arg Trp Phe Arg Arg Pro Trp Arg Ala
                     70
Ser Pro Asn Gly Gly Asn Trp Leu Thr Tyr Thr Ala Pro Thr
<210> 1849
<211> 390
<212> DNA
<213> Homo sapiens
<400> 1849
cggaaagaac aggttcagca aagagcaata gaatgttccc gggctctcag tgcgattctt
gacattgaac atggagaccc aaaagagaat gtactaggtt cagcttttga catgaaacag
ctgaaggatg ctattgatga gactaaaata gctttgatgg gacattcttt tggaggagca
acagttette aagecettag tgaggaccag agatteagat gtggagttge tettgateea
tggatgtatc cggtgaacga agagctgtac tccagaaccc tccagcctct cctctttatc
aactctgcca aattccagac tccaaaggac atcgcaaaaa tgaaaaagtt ctaccaqcct
gacaaggaaa ggaaanatga ttacaatcaa
390
<210> 1850
<211> 130
<212> PRT
<213> Homo sapiens
<400> 1850
Arg Lys Glu Gln Val Gln Gln Arg Ala Ile Glu Cys Ser Arg Ala Leu
1
Ser Ala Ile Leu Asp Ile Glu His Gly Asp Pro Lys Glu Asn Val Leu
            20
                                25
Gly Ser Ala Phe Asp Met Lys Gln Leu Lys Asp Ala Ile Asp Glu Thr
                            40
Lys Ile Ala Leu Met Gly His Ser Phe Gly Gly Ala Thr Val Leu Gln
Ala Leu Ser Glu Asp Gln Arg Phe Arg Cys Gly Val Ala Leu Asp Pro
```

```
75
                    70
Trp Met Tyr Pro Val Asn Glu Glu Leu Tyr Ser Arg Thr Leu Gln Pro
                                    90
Leu Leu Phe Ile Asn Ser Ala Lys Phe Gln Thr Pro Lys Asp Ile Ala
                                105
            100
Lys Met Lys Lys Phe Tyr Gln Pro Asp Lys Glu Arg Lys Xaa Asp Tyr
                                                125
                            120
Asn Gln
    130
<210> 1851
<211> 574
<212> DNA
<213> Homo sapiens
<400> 1851
negateggag aggettteeg caetggtgae ttggaeteta ageeegaeee cageeggage
ttcaggcctt accgagctga agacaatgat tcctatgcct ctgagatcaa ggagctgcag
ctggtgctgg ctgaggccca cgacagcctc cggggcttgc aagagcagct ctcccaggag
cggcagctac gaaaggagga ggccgacaat ttcaaccaga aaatggtcca gctgaaggag
gaccagcaga gggcgctcct gaggcgggag tttgagctgc agagtctgag cctccagcgg
300
aggetggage agaaattetg gagecaggag aagaacatge tggtgcagga gteecagcaa
ttcaagcaca acttectget getetteatg aageteaggt ggtteeteaa gegetggegg
cagggcaagg ttttgcccag cgaaggggat gacttcctcg aggtgaacag catgaaggac
ctgtacttgc tgatggagga agacgagata aacgctcagc attctgataa caaggcctgc
acgggggaca gctggaccca gaacacgccc aatg
574
<210> 1852
<211> 191
<212> PRT
<213> Homo sapiens
<400> 1852
Xaa Ile Gly Glu Ala Phe Arg Thr Gly Asp Leu Asp Ser Lys Pro Asp
Pro Ser Arg Ser Phe Arg Pro Tyr Arg Ala Glu Asp Asn Asp Ser Tyr
                                 25
Ala Ser Glu Ile Lys Glu Leu Gln Leu Val Leu Ala Glu Ala His Asp
                             40
Ser Leu Arg Gly Leu Gln Glu Gln Leu Ser Gln Glu Arg Gln Leu Arg
                                             60
                        55
Lys Glu Glu Ala Asp Asn Phe Asn Gln Lys Met Val Gln Leu Lys Glu
                                         75
                     70
Asp Gln Gln Arg Ala Leu Leu Arg Arg Glu Phe Glu Leu Gln Ser Leu
```

```
90
 Ser Leu Gln Arg Arg Leu Glu Gln Lys Phe Trp Ser Gln Glu Lys Asn
             100
                                  105
 Met Leu Val Gln Glu Ser Gln Gln Phe Lys His Asn Phe Leu Leu Leu
                             120
                                                  125
 Phe Met Lys Leu Arg Trp Phe Leu Lys Arg Trp Arg Gln Gly Lys Val
                         135
 Leu Pro Ser Glu Gly Asp Asp Phe Leu Glu Val Asn Ser Met Lys Asp
                     150
                                         155
 Leu Tyr Leu Leu Met Glu Glu Asp Glu Ile Asn Ala Gln His Ser Asp
                                     170
 Asn Lys Ala Cys Thr Gly Asp Ser Trp Thr Gln Asn Thr Pro Asn
                                 185
 <210> 1853
 <211> 338
 <212> DNA
 <213> Homo sapiens
 <400> 1853
 geeggegeeg accaageeac ggeatgeece acceaecttg gaagaggtgt egtteegeea
 cgtcattgag gagcgcgccg tcgaagctga cttgttcgtc cgctcgctca atacactcga
 geetgegaeg ggeatggeae ttetgegeat etegeaceae atggatggea aggteggeae
 gacgttttac ctggatgacg atgtcatttt tgtcgcgcca cagaagcagc gctcagccga
 gggccagcga ctcgaatacg agcccgtctc tttggccgag ttgctcgagc gcgctgctgc
atagaataca tatacccaag ctatgatgat gccgtcgt
<210> 1854
<211> 100
<212> PRT
<213> Homo sapiens ·
<400> 1854
Met Pro His Pro Pro Trp Lys Arg Cys Arg Ser Ala Thr Ser Leu Arg
                 5
                                    10
Ser Ala Pro Ser Lys Leu Thr Cys Ser Ser Ala Arg Ser Ile His Ser
Ser Leu Arg Arg Ala Trp His Phe Cys Ala Ser Arg Thr Trp Met
Ala Arg Ser Ala Arg Arg Phe Thr Trp Met Thr Met Ser Phe Leu Ser
Arg His Arg Ser Ser Ala Gln Pro Arg Ala Ser Asp Ser Asn Thr Ser
                                        75
Pro Ser Leu Trp Pro Ser Cys Ser Ser Ala Leu Leu His Arg Ile His
                                   90
Ile Pro Lys Leu
            100
```

```
<210> 1855
<211> 429
<212> DNA
<213> Homo sapiens
<400> 1855
gegteetteg egtaegtgga egagggeggg caggtgtteg tecagtgeag cacceageae
ccgagcgaaa cgcaggaaat cgtggcgcac gtcctggacc tggacaacca cgaggtcacg
gtgcagtgct tgcgcatggg cggtggcttt ggcggtaagg aaatgcagcc gcacgggttc
geogegateg cageactegg egegaceetg acegggegae eggttegaet gegaetgaee
cgaaaccagg acatcaccat ctccggaaag cgccacccat acctcgcgga gtgggacgtg
geettegacg acgaeggeeg cetecagget etgegegeea eegteaceag egaeggeggg
tggagcctgg acctetegga geeggtgatg cageggaegg tgtgteacat egataaetee
420
tattggatc
429
<210> 1856
<211> 143
<212> PRT
<213> Homo sapiens
<400> 1856
Ala Ser Phe Ala Tyr Val Asp Glu Gly Gly Gln Val Phe Val Gln Cys
                                    10
                 5
Ser Thr Gln His Pro Ser Glu Thr Gln Glu Ile Val Ala His Val Leu
                                 25
Asp Leu Asp Asn His Glu Val Thr Val Gln Cys Leu Arg Met Gly Gly
                                                 45
                             40
Gly Phe Gly Gly Lys Glu Met Gln Pro His Gly Phe Ala Ala Ile Ala
                         55
Ala Leu Gly Ala Thr Leu Thr Gly Arg Pro Val Arg Leu Arg Leu Thr
                                        75
                     70
Arg Asn Gln Asp Ile Thr Ile Ser Gly Lys Arg His Pro Tyr Leu Ala
                                     90
                 85
Glu Trp Asp Val Ala Phe Asp Asp Gly Arg Leu Gln Ala Leu Arg
                                 105
Ala Thr Val Thr Ser Asp Gly Gly Trp Ser Leu Asp Leu Ser Glu Pro
                             120
Val Met Gln Arg Thr Val Cys His Ile Asp Asn Ser Tyr Trp Ile
                         135
    130
 <210> 1857
 <211> 393
 <212> DNA
 <213> Homo sapiens
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<400> 1857

gtgcacgccg ctgccccagc cgtcgcctac cgatcaacag acgcagccgc cgtgcgttga

gataccagec gageacgate atgeteagea tggteageag cagecagaac ggaaategea

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geaggegete gaacagetea etgecaceca geaccagegg gattgeeceg gecacgacea
gtgcgccgag gagcagccac catcgcccgc tcatgctgcg gcactcgata ccaatacgtt
gegetteaac caategatet tggtegagge atgeegeeca tettecaaca ggegagteac
cagactcage cagtaacace gegaaaaate gtggegeatg tegacagggt gcaaacegag
acgcagcacg ggtgcctgtc ggtggcgggc gag
393
<210> 1858
<211> 104
<212> PRT
<213> Homo sapiens
<400> 1858
Met Leu Ser Met Val Ser Ser Ser Gln Asn Gly Asn Arg Ser Arg Arg
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Ser Asn Ser Ser Leu Pro Pro Ser Thr Ser Gly Ile Ala Pro Ala Thr
            20
                                25
Thr Ser Ala Pro Arg Ser Ser His His Arg Pro Leu Met Leu Arg His
                            40
Ser Ile Pro Ile Arg Cys Ala Ser Thr Asn Arg Ser Trp Ser Arg His
Ala Ala His Leu Pro Thr Gly Glu Ser Pro Asp Ser Ala Ser Asn Thr
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                                        75
Ala Lys Asn Arg Gly Ala Cys Arg Gln Gly Ala Asn Arg Asp Ala Ala
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                                    90
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Arg Val Pro Val Gly Gly Arg
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<210> 1859
<211> 345
<212> DNA
<213> Homo sapiens
<400> 1859
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ttecacatgt tttttctcgc acgatactgc aagettctgg aggagaactc atttagagga
agaactgccg acttttttta catgctcttg tttggtgcta ctgtcctaac tagcattgtt
ctgatcggag ggatgatacc ttacatttcc gagacatttg ccagaattct gttcctgagc
240
aattcattga cgtttatgat ggtttatgtc tggagcaagc acaatcctat catccatatg
agcaatctgg gcctgttcac ctttacggct gcatacttac catgg
345
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<210> 1860
<211> 115
<212> PRT
<213> Homo sapiens
<400> 1860
Xaa Ile Trp Arg Leu Val Thr Asn Phe Leu Tyr Phe Arg Lys Met Asp
Leu Asp Phe Leu Phe His Met Phe Phe Leu Ala Arg Tyr Cys Lys Leu
                                25
Leu Glu Glu Asn Ser Phe Arg Gly Arg Thr Ala Asp Phe Phe Tyr Met
                            40
Leu Leu Phe Gly Ala Thr Val Leu Thr Ser Ile Val Leu Ile Gly Gly
                        55
Met Ile Pro Tyr Ile Ser Glu Thr Phe Ala Arg Ile Leu Phe Leu Ser
                    70
Asn Ser Leu Thr Phe Met Met Val Tyr Val Trp Ser Lys His Asn Pro
                                    90
Ile Ile His Met Ser Asn Leu Gly Leu Phe Thr Phe Thr Ala Ala Tyr
Leu Pro Trp
        115
<210> 1861
<211> 435
<212> DNA
<213> Homo sapiens
<400> 1861
gegttgactg tagtgagtga cgaagetgat atacaaaatg cgccgggcgt tagaaaagec
aatagtgage tteatteagt eggettaggt gttatgaact tacatggeta tettgetaaa
aacaaaattg gctatgagtc ggaagaagct aaagattttg ctaatatatt ctttatgatg
atgaattact attcacttga aagatcaatg caaatagcaa aagaaagaca ggaaacgttt
aaagactttg ataagtcaga ttatgcaaat ggaaaatatt tcgaatttta tacttcgcaa
teatttgaac egaaataega aaaagtaegt aaattatttg atggtttaga aateecaaeg
cctgaagatt ggaaagcatt gcaaaaagaa gttgaaactc acggtttatt ccatgcttat
cgtttagcga ttgca
435
<210> 1862
<211> 145
<212> PRT
<213> Homo sapiens
<400> 1862
Ala Leu Thr Val Val Ser Asp Glu Ala Asp Ile Gln Asn Ala Pro Gly
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1
                                     10
 Val Arg Lys Ala Asn Ser Glu Leu His Ser Val Gly Leu Gly Val Met
 Asn Leu His Gly Tyr Leu Ala Lys Asn Lys Ile Gly Tyr Glu Ser Glu
                             40
 Glu Ala Lys Asp Phe Ala Asn Ile Phe Phe Met Met Asn Tyr Tyr
                         55
                                             60
 Ser Leu Glu Arg Ser Met Gln Ile Ala Lys Glu Arg Gln Glu Thr Phe
                     70
Lys Asp Phe Asp Lys Ser Asp Tyr Ala Asn Gly Lys Tyr Phe Glu Phe
                 85
                                     90
Tyr Thr Ser Gln Ser Phe Glu Pro Lys Tyr Glu Lys Val Arg Lys Leu
                                 105
Phe Asp Gly Leu Glu Ile Pro Thr Pro Glu Asp Trp Lys Ala Leu Gln
                             120
Lys Glu Val Glu Thr His Gly Leu Phe His Ala Tyr Arg Leu Ala Ile
                         135
                                             140
Ala
145
<210> 1863
<211> 792
<212> DNA
<213> Homo sapiens
<400> 1863
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teteegtegt geteactace cacaacatgg atgaggetea aeggetgget gateaegtet
ggatcgtcga tcgcggcagg gtcgcaactc atggaactgt gccagagctc accgctgagt
cgagtttgga agatgtgttc ctcactcaca ctagtgaccg cgcagcaggg aggaattgac
atgacgacac tegateteeg eccegeacet caggeegeac eggetgetge aegegtgegt
aaccacgctc tcaccgaggt gcgtctggtg atgcgcaacg gtgagcagct gctactagct
ctcgtcattc ccatcgggat catcgtcgcc gggcgcttcc tgggcggccg ggtcggactg
acgatggacg tettageace etcagtgetg gegetegeea tetggtegae atgttteact
teccaagega teatgacegg tittgaaege egitaegggg tgetegaaeg attgteegea
accccgttag gtcggtcggg tctgctagct ggcaaggcga tggcttattc cgttatcagt
ctegeteagg tgatactget tgteateate tetttagege tgggetggea ecceaeggt
treggertgg cetggetere aaccetggtg agegttgtge tegeratgat garatteggg
ctcgcagcac tggcaatggc cggcgctggc aaagctgaag tcactctcgg actggccaac
ttggtataca tc
792
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<210> 1864
<211> 264
<212> PRT
<213> Homo sapiens
<400> 1864
Xaa Ile Leu Thr Pro Ala Ile Ile Arg Gly Ile Ser Leu Ser Lys Cys
                                  10
Val Met Thr Gly Ser Pro Ser Cys Ser Leu Pro Thr Thr Trp Met Arg
                              25
          20
Leu Asn Gly Trp Leu Ile Thr Ser Gly Ser Ser Ile Ala Ala Gly Ser
                                              45
                          40
Gln Leu Met Glu Leu Cys Gln Ser Ser Pro Leu Ser Arg Val Trp Lys
                                          60
                       55
Met Cys Ser Ser Leu Thr Leu Val Thr Ala Gln Gln Gly Gly Ile Asp
                                      75
                   70
Met Thr Thr Leu Asp Leu Arg Pro Ala Pro Gln Ala Ala Pro Ala Ala
                                  90
Ala Arg Val Arg Asn His Ala Leu Thr Glu Val Arg Leu Val Met Arg
                  105
           100
Asn Gly Glu Gln Leu Leu Leu Ala Leu Val Ile Pro Ile Gly Ile Ile
                                               125
                           120
Val Ala Gly Arg Phe Leu Gly Gly Arg Val Gly Leu Thr Met Asp Val
                                          140
                        135
Leu Ala Pro Ser Val Leu Ala Leu Ala Ile Trp Ser Thr Cys Phe Thr
                                       155
                    150
Ser Gln Ala Ile Met Thr Gly Phe Glu Arg Arg Tyr Gly Val Leu Glu
                                  170
                165
Arg Leu Ser Ala Thr Pro Leu Gly Arg Ser Gly Leu Leu Ala Gly Lys
                               185
Ala Met Ala Tyr Ser Val Ile Ser Leu Ala Gln Val Ile Leu Leu Val
                                               205
                            200
Ile Ile Ser Leu Ala Leu Gly Trp His Pro His Gly Ser Gly Leu Ala
                     215
Trp Leu Pro Thr Leu Val Ser Val Val Leu Ala Met Met Thr Phe Gly
                                      -235
                   230
Leu Ala Ala Leu Ala Met Ala Gly Ala Gly Lys Ala Glu Val Thr Leu
                                   250
                245
Gly Leu Ala Asn Leu Val Tyr Ile
            260
<210> 1865
 <211> 717
 <212> DNA
 <213> Homo sapiens
 <400> 1865
ngccggctga tcaaacaact cacagacatg ggcttcccga gagagccagc tgaggaggcc
 ttgaagagta acaatatgaa tottgatcag gocatgagog ototgotgga aaagaaggtg
 gacgtggaca agcgtgggct gggagtgacc gaccataatg gaatggccgc caagcccctc
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ggctgccgcc cgccaatctc caaagagtct tccgtggacc gccccaccct tcttgacaag
 gatggcggcc tcgtggaaga gcccacgcct tcaccgttct tgccttcccc aaqcctqaaq
 ctcccccttt cacacagtgc actccccagt caggccctgg gtggggttgc ctccgggctg
 ggcatgcaaa acttgaattc ttctagacag ataccgagtg gcaatctggg tatgtttggc
 aatagtggag cagcacaagc caggaccatg cagcagccgc cacagccacc agtgcagcct
 cttaactctt cccagcccag tctccgtgct caagtgcctc agtttctatc ccctcaggtt
 caagcacagc ttttgcagtt tgcagcaaaa aacattggtc tcaaccctgc actattaacc
tegecaatta ateeteaaca tatgaegatg ttgaaceage tetateaget geagetggea
taccaacgtt tacaaatcca gcagcagatg ttacaggccc agcgtaatgt gtccgga
717
<210> 1866
<211> 239
<212> PRT
<213> Homo sapiens
<400> 1866
Xaa Arg Leu Ile Lys Gln Leu Thr Asp Met Gly Phe Pro Arg Glu Pro
                                     10
Ala Glu Glu Ala Leu Lys Ser Asn Asn Met Asn Leu Asp Gln Ala Met
                                 25
Ser Ala Leu Leu Glu Lys Lys Val Asp Val Asp Lys Arg Gly Leu Gly
                             40
Val Thr Asp His Asn Gly Met Ala Ala Lys Pro Leu Gly Cys Arg Pro
Pro Ile Ser Lys Glu Ser Ser Val Asp Arg Pro Thr Leu Leu Asp Lys
                    70
                                        75
                                                             80
Asp Gly Gly Leu Val Glu Glu Pro Thr Pro Ser Pro Phe Leu Pro Ser
                                    90
Pro Ser Leu Lys Leu Pro Leu Ser His Ser Ala Leu Pro Ser Gln Ala
            100
                                105
Leu Gly Gly Val Ala Ser Gly Leu Gly Met Gln Asn Leu Asn Ser Ser
                            120
                                                125
Arg Gln Ile Pro Ser Gly Asn Leu Gly Met Phe Gly Asn Ser Gly Ala
                        135
                                            140
Ala Gln Ala Arg Thr Met Gln Gln Pro Pro Gln Pro Pro Val Gln Pro
                    150
Leu Asn Ser Ser Gln Pro Ser Leu Arg Ala Gln Val Pro Gln Phe Leu
                                    170
                                                        175
Ser Pro Gln Val Gln Ala Gln Leu Leu Gln Phe Ala Ala Lys Asn Ile
            180
                                185
                                                    190
Gly Leu Asn Pro Ala Leu Leu Thr Ser Pro Ile Asn Pro Gln His Met
                            200
Thr Met Leu Asn Gln Leu Tyr Gln Leu Gln Leu Ala Tyr Gln Arg Leu
                        215
Gln Ile Gln Gln Met Leu Gln Ala Gln Arg Asn Val Ser Gly
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145
                    150
                                                             160
                                         155
 Gln Gly Ser Phe Cys Met Leu Cys Val Met Gln Asn His Ile Val Gln
                 165
                                    170
 Ala Phe Ala Asn Ser Gly Asn Ala Ile Lys Pro Val Ser Phe Ile Arg
                                185
                                                    190
 Asp Leu Lys Lys Ile Ala Arg His Phe Arg Phe Gly Asn Gln Glu Asp
                            200
                                                205
 Ala His Glu Phe Leu Arg Tyr Thr Ile Asp Ala Met Gln Lys Ala Cys
                        215
 Leu Asn Gly Cys Ala Lys Leu Asp Arg Gln Thr Gln Ala Thr Thr Leu
                    230
                                        235
 Val His Gln Ile Phe Gly Gly Tyr Leu Arg Ser Arg
                245
                                    250
 <210> 1881
 <211> 358
<212> DNA
<213> Homo sapiens
<400> 1881
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aaatccctgc agaaccgcaa agtttggcag agaagaagga tgaatgggag atcgcataca
tcaacacgaa gattaacgac gtctacaacc ctctcaacaa caatgtggac tggttaagca
cgagaattga tctgctacag caagatttgg acaccactcg caagaaggat ctaaaaccag
ccacategat egatatetge accateacat egategatag caagttegta gecategaag
ataggttaca atcttataag gatatgcacg accgtttcac ctcacctatc aggcqata
<210> 1882
<211> 115
<212> PRT
<213> Homo sapiens
Met Asp Ala Gly Lys Ala Thr Ser Ile Asp Val Lys Pro Gln Thr Ser
                5
Gln Ile Pro Ala Glu Pro Gln Ser Leu Ala Glu Lys Lys Asp Glu Trp
            20
                               25
Glu Ile Ala Tyr Ile Asn Thr Lys Ile Asn Asp Val Tyr Asn Pro Leu
Asn Asn Asn Val Asp Trp Leu Ser Thr Arg Ile Asp Leu Leu Gln Gln
                       55
Asp Leu Asp Thr Thr Arg Lys Lys Asp Leu Lys Pro Ala Thr Ser Ile
                   70
                                       75
Asp Ile Cys Thr Ile Thr Ser Ile Asp Ser Lys Phe Val Ala Met Glu
               85
                                   90
Asp Arg Leu Gln Ser Tyr Lys Asp Met His Asp Arg Phe Thr Ser Pro
                               105
Ile Arg Arg
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115 <210> 1883 <211> 367 <212> DNA <213> Homo sapiens <400> 1883 ggatcctatc atgaatctgc actctgacca gggaagtaac tcccttggct gctcagactt gggctgggag aatgatacta agacaccaga catcacatcc attgctccca ttcccactat 120 tgctgaaggc gatgagtctg tatttgtcaa ctccaattca aacagctcga tggtgcctcc tgtcctggag aacaatgctg ttgatctcac tgatgggctg acagatttgg aatcctatat gaggtttctt atggatggcg gngcaagtga ttcaattgat agccttctga accttgatgg atcacaggat cttggtagca atatggacct ctggaccttc gatgacatgc ccatcgctgg cgatttn 367 <210> 1884 <211> 119 <212> PRT <213> Homo sapiens <400> 1884 Met Asn Leu His Ser Asp Gln Gly Ser Asn Ser Leu Gly Cys Ser Asp 10 Leu Gly Trp Glu Asn Asp Thr Lys Thr Pro Asp Ile Thr Ser Ile Ala 30 20 Pro Ile Pro Thr Ile Ala Glu Gly Asp Glu Ser Val Phe Val Asn Ser 40 Asn Ser Asn Ser Ser Met Val Pro Pro Val Leu Glu Asn Asn Ala Val 55 Asp Leu Thr Asp Gly Leu Thr Asp Leu Glu Ser Tyr Met Arg Phe Leu 75 Met Asp Gly Gly Ala Ser Asp Ser Ile Asp Ser Leu Leu Asn Leu Asp 85 Gly Ser Gln Asp Leu Gly Ser Asn Met Asp Leu Trp Thr Phe Asp Asp 105 100 Met Pro Ile Ala Gly Asp Xaa 115 <210> 1885 <211> 392 <212> DNA <213> Homo sapiens <400> 1885 nacgegtatt egeaaagaat gtetttgegg cacagagaca gtegtegtee tegacaccat

60

gttcgacgat ctcggcatgt tgggaacccg gtgatttctc gcctgcggcg cacctcgtgg

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120
 ctgcgtagta cagctgctgt tgccgccggg gccgcgaccg gtaccgggtt ccaaccactg
 180
 aactggtgga tectegteat teceggtete getgegetea teetgetggt gegeaaegee
actggtcggg ccgcggcagg actggggtat ctcttcggca tcggtctgtt taccaccacc
atttcctggg taggcgtcat cggcccgccg gtggcgatac ttctcatcgc tgtcatggcg
ttgtggtgtc tgctggccgg gtggacgatt cg
392
<210> 1886
<211> 130
<212> PRT
<213> Homo sapiens
<400> 1886
Xaa Ala Tyr Ser Gln Arg Met Ser Leu Arg His Arg Asp Ser Arg Arg
Pro Arg His His Val Arg Arg Ser Arg His Val Gly Asn Pro Val Ile
                                 25
Ser Arg Leu Arg Arg Thr Ser Trp Leu Arg Ser Thr Ala Ala Val Ala
                             40
Ala Gly Ala Ala Thr Gly Thr Gly Phe Gln Pro Leu Asn Trp Trp Ile
                         55
Leu Val Ile Pro Gly Leu Ala Ala Leu Ile Leu Leu Val Arg Asn Ala
                     70
Thr Gly Arg Ala Ala Ala Gly Leu Gly Tyr Leu Phe Gly Ile Gly Leu
                                     90
Phe Thr Thr Thr Ile Ser Trp Val Gly Val Ile Gly Pro Pro Val Ala
                                 105
Ile Leu Leu Ile Ala Val Met Ala Leu Trp Cys Leu Leu Ala Gly Trp
        115
                             120
                                                 125
Thr Ile
    130
<210> 1887
<211> 363
<212> DNA
<213> Homo sapiens
cgcgagttca ttcggacctt tgaggacgtt gccaagcgtc tcaatgggga ccagccgatc
gacttcttgg tgcagggaac tttatatccc gatgtcgtcg agtctggtgg cggtgagggc
120
gctgccaata tcaagagtca ccataatgtt ggtgggctcc ctgacgacct ccagttcagt
180
ctcgttgagc cattgcgcac cctctttaag gacgaggtgc gagccgtcgg actcgaactt
ggtctgcccg aggacatcgt ctggcgtcag cccttcccgg gcccggggct ggctatccgc
300
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attattggcg aagtcaccgc ggagcgtctg gaggtgctac gcactgccga tgccatcacg
cqt
363
<210> 1888
<211> 121
<212> PRT
<213> Homo sapiens
<400> 1888
Arg Glu Phe Ile Arg Thr Phe Glu Asp Val Ala Lys Arg Leu Asn Gly
                                    10
                 5
Asp Gln Pro Ile Asp Phe Leu Val Gln Gly Thr Leu Tyr Pro Asp Val
                                25
Val Glu Ser Gly Gly Glu Gly Ala Ala Asn Ile Lys Ser His His
                                                45
                            40
Asn Val Gly Gly Leu Pro Asp Asp Leu Gln Phe Ser Leu Val Glu Pro
Leu Arg Thr Leu Phe Lys Asp Glu Val Arg Ala Val Gly Leu Glu Leu
                                        75
Gly Leu Pro Glu Asp Ile Val Trp Arg Gln Pro Phe Pro Gly Pro Gly
                85
Leu Ala Ile Arg Ile Ile Gly Glu Val Thr Ala Glu Arg Leu Glu Val
                                105
            100
Leu Arg Thr Ala Asp Ala Ile Thr Arg
                             120
<210> 1889
<211> 530
<212> DNA
<213> Homo sapiens
<400> 1889
geaccagate tgeteatgge gegeattgeg aeggeaacge agtegateeg gettgggtet
60
ggtggggtga tggccatgca ctacgggtcg ctgcaaatag cggaacggtt ttcgaccctc
acagegetet teggtgateg tategacatg gggetgggee gggeteeegg eggtgacatg
cteteegece atgeceteaa teaggggeag gteateegee etgaggeeat taatteeete
ategeegaaa eggtagggtt egtgegegaa atgetacegt egaageatee gtaegeaaag
gtcgtcgtga ccccggcagg tcagatccag ccacagacgt ggctgctggg atcgtcgggc
cagtcagcag cgtgggctgg tgagcagggt atggactacg cctacgccca gtttttcacc
gggegecagg acaeegggat catggateae taeegegege acetgteega eggetteeee
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530
<210> 1890
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<211> 176
<212> PRT
<213> Homo sapiens
<400> 1890
Ala Pro Asp Leu Leu Met Ala Arg Ile Ala Thr Ala Thr Gln Ser Ile
                                    10
Arg Leu Gly Ser Gly Gly Val Met Ala Met His Tyr Gly Ser Leu Gln
                                 25
Ile Ala Glu Arg Phe Ser Thr Leu Thr Ala Leu Phe Gly Asp Arg Ile
Asp Met Gly Leu Gly Arg Ala Pro Gly Gly Asp Met Leu Ser Ala His
Ala Leu Asn Gln Gly Gln Val Ile Arg Pro Glu Ala Ile Asn Ser Leu
                    70
                                         75
Ile Ala Glu Thr Val Gly Phe Val Arg Glu Met Leu Pro Ser Lys His
                                    90
Pro Tyr Ala Lys Val Val Val Thr Pro Ala Gly Gln Ile Gln Pro Gln
                                105
Thr Trp Leu Leu Gly Ser Ser Gly Gln Ser Ala Ala Trp Ala Gly Glu
                            120
        115
Gln Gly Met Asp Tyr Ala Tyr Ala Gln Phe Phe Thr Gly Arg Gln Asp
                        135
                                            140
Thr Gly Ile Met Asp His Tyr Arg Ala His Leu Ser Asp Gly Phe Pro
                    150
Gly Arg Thr Leu Ser Ala Val Cys Val Ser Ala Ala Pro Thr Arg Pro
                                    170
<210> 1891
<211> 423
<212> DNA
<213> Homo sapiens
<400> 1891
agateteagg gagacagagg ggeeegggat aggaagaata tgtgggeace teteceacag
tectecatet geacaagget acceaetetg cagatggeec etgettgeag agagateeag
cgtcaattta cagaggcagc ccagcttcct atcaactttc tggcctggct taacggtgta
atgggcaggg ggcaaggcct tgaccacact catgtttctc ccccggcctc ctccactctg
ggattttgta ccggtatggg gaggcactac ggttgcagat ttagcttttc agcgtggata
caagcaccca agtgtcccag accacagcag aaaccgtgtt gctgccgttt ccaacctgct
gatttggtct cttgctgccg ttctgaccaa cagaattgct actgactgac aaatcccttg
420
tgc
423
<210> 1892
<211> 121
<212> PRT
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<213> Homo sapiens <400> 1892 Met Trp Ala Pro Leu Pro Gln Ser Ser Ile Cys Thr Arg Leu Pro Thr Leu Gln Met Ala Pro Ala Cys Arg Glu Ile Gln Arg Gln Phe Thr Glu 25 Ala Ala Gln Leu Pro Ile Asn Phe Leu Ala Trp Leu Asn Gly Val Met Gly Arg Gly Gln Gly Leu Asp His Thr His Val Ser Pro Pro Ala Ser 55 Ser Thr Leu Gly Phe Cys Thr Gly Met Gly Arg His Tyr Gly Cys Arg 75 70 Phe Ser Phe Ser Ala Trp Ile Gln Ala Pro Lys Cys Pro Arg Pro Gln 90 Gln Lys Pro Cys Cys Cys Arg Phe Gln Pro Ala Asp Leu Val Ser Cys 105 100 Cys Arg Ser Asp Gln Gln Asn Cys Tyr <210> 1893 <211> 886 <212> DNA <213> Homo sapiens <400> 1893 accggtggtg ctgaaccggc ccgagttgcc cttcctagcc ggatatacgt cgagggacgt catgacgctg aactcgtcga aaagatatgg ggcgacgacc tgcgccacgt cggggtcgtt gtggaataca tgggtggcat ggacgacctc gtcgggatcg tcgccgagtt taagcctggt 180 ccggggcatc gccttggcgt gttggttgac cacctcgttg ccgacaccaa agagtcacgg gtageggaeg aagtaegteg tggtgggtat agegagtatg teatgattae eggteatege 300 tttattgaca tctggcaggc catcaaacct caacgaattg gccgtcaaga atggcctgag gtecegatgg acgaagaett caaactegge accetgaage gtetgggeet geeteacteg acccaagetg acgteggtaa ggcetggcag gccatgetgg cacgagtgeg egactggcae gatttagacc cccgctttaa cacggagatg gagaaactta tcgatttcgt cacgcgtgac 540 catgtcgacg agctggacaa tggggagatg gcatgagtat tgacgtcgac acggtgtctg acctcatccg ggatgtgagt gccagggtta tcgatccccg gttccggacc ctccacgatc atcaaatcca ccagaaaaag cccggggact tcgttactga tgccgatcgt caggccgagt gcgagctggg tgccgctgtg accaagtatg ccggcggtat tgtcgtgggg gaggaatcag cettegeega cecaaceate éttgatgeeg ttteegatge tgacetggee tgggteateg

840 .

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accccattga tggcactaag aacttcgtgc acgggtctgt tgatca
 886
 <210> 1894
 <211> 191
 <212> PRT
 <213> Homo sapiens
<400> 1894
Thr Gly Gly Ala Glu Pro Ala Arg Val Ala Leu Pro Ser Arg Ile Tyr
                                     10
Val Glu Gly Arg His Asp Ala Glu Leu Val Glu Lys Ile Trp Gly Asp
Asp Leu Arg His Val Gly Val Val Val Glu Tyr Met Gly Gly Met Asp
Asp Leu Val Gly Ile Val Ala Glu Phe Lys Pro Gly Pro Gly His Arg
                                             60
Leu Gly Val Leu Val Asp His Leu Val Ala Asp Thr Lys Glu Ser Arg
                     70
                                         75
Val Ala Asp Glu Val Arg Arg Gly Gly Tyr Ser Glu Tyr Val Met Ile
                                     90
Thr Gly His Arg Phe Ile Asp Ile Trp Gln Ala Ile Lys Pro Gln Arg
                                 105
Ile Gly Arg Gln Glu Trp Pro Glu Val Pro Met Asp Glu Asp Phe Lys
        115
                             120
                                                 125
Leu Gly Thr Leu Lys Arg Leu Gly Leu Pro His Ser Thr Gln Ala Asp
                        135
Val Gly Lys Ala Trp Gln Ala Met Leu Ala Arg Val Arg Asp Trp His
                    150
                                         155
Asp Leu Asp Pro Arg Phe Asn Thr Glu Met Glu Lys Leu Ile Asp Phe
                165
                                    170
Val Thr Arg Asp His Val Asp Glu Leu Asp Asn Gly Glu Met Ala
                                 185
<210> 1895
<211> 2555
<212> DNA
<213> Homo sapiens
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            20
                                 25
Ile Thr Trp Arg Arg Pro Gln Arg Ile Cys Ala Asn Pro Arg Leu Phe
                             40
Pro Asn Asp Gln Arg Glu Gly Gln Val Lys Gln Gly Leu Leu Gly Asp
                        55
Cys Trp Phe Leu Cys Ala Cys Ala Ala Leu Gln Lys Ser Arg His Leu
                    70
                                        75
Leu Asp Gln Val Ile Pro Ala Gly Gln Pro Ser Trp Ala Asp Gln Glu
Tyr Arg Gly Ser Phe Thr Cys Arg Phe Trp Gln Phe Gly Arg Trp Val
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Glu Gly Pro Trp Val Pro Ser Ser Pro Cys Gly Arg Gly Arg Trp Arg
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Met Pro Trp Trp Thr
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Cys Val Asn Asp Leu Phe Pro Gly Gly Gly Asp Thr Ser Lys Ala Thr
Phe Trp Thr Gly Leu Arg Pro Met Thr Pro Asp Gly Thr Pro Ile Val
                        55
                                             60
Gly Arg Thr Pro Val Ser Asn Leu Phe Leu Asn Thr Gly His Gly Thr
65
                    70
                                         75
Leu Gly Trp Thr Met Val Cys Gly Ser Gly Gln Leu Leu Ala Asp Leu
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Ile Ser Gly Lys Met Pro Ala Ile Gln Ala Asp Asp Leu Ser Xaa
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<210> 1909
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<213> Homo sapiens
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actooggagg agetggcage cetetttgeg ceetaeggca eggteatgag etgegeegte
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gecetgeacg gecaegaget geggeegggg egegegeteg tggtggaaat gtegegeeea
300
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gaactgcgca geetettega gegeegegga egegteateg agtgtgaegt ggtgaaagae
420
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480		gaaggaagca			
540		gcgcatcaac			
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720		gcaagcccgt			
780		acctccccga			
840		gccgtccgtg			
900		ctatcggact			
960		ccttggggca			
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1080		tcaggcagct			
1140					ccaggctgcc
1200					agetteetee
1260					ctcctcacta
1320					caatgcccag
1380					tgcctatgtg
1440		tgcctatgcc			
1500		ctatggggcc			
1560		gggcctttca			
1620		cgcagcagcc			
1680		atcagcctca			
1740					ggcaggtcag
1800					cagcaccccg
1860					tccctacaaa
1920		aaggtatggt			
1980					gtcctcgctg
gattaccgtc 2040	gcctgcccga	tgcccattcc	gattacgcac	gctattcggg	ctcctataat

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2280
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tetececaga atgggaattt etttatgtt tttatttttt teetggetee ettttatttt
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gccaagetgt gccagcagtc cagggtaccc tgactgtccc tctgtagact gttgagactg
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2640
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<211> 669
<212> PRT
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                            40
Leu Arg Ala Ile Glu Ala Leu His Gly His Glu Leu Arg Pro Gly Arg
                        55
                                            60
Ala Leu Val Val Glu Met Ser Arg Pro Arg Pro Leu Asn Thr Trp Lys
                    70
                                        75
Ile Phe Val Gly Asn Val Ser Ala Ala Cys Thr Ser Gln Glu Leu Arg
                                    90
Ser Leu Phe Glu Arg Arg Gly Arg Val Ile Glu Cys Asp Val Val Lys
            100
                                105
                                                    110
Asp Tyr Ala Phe Val His Met Glu Lys Glu Ala Asp Ala Lys Ala Ala
        115
                            120
                                                125
Ile Ala Gln Leu Asn Gly Lys Glu Val Lys Gly Lys Arg Ile Asn Val
                        135
                                            140
Glu Leu Ser Thr Lys Gly Gln Lys Lys Gly Pro Gly Leu Ala Val Gln
                                        155
                    150
Ser Gly Asp Lys Thr Lys Lys Pro Gly Ala Gly Asp Thr Ala Phe Pro
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165	ro la ln 40 er
Asn Ser Thr Gly Gly Phe Asp Gly Gln Ala Arg Gln Pro Thr Pro Pro Phe Phe Gly Arg Asp Arg Ser Pro Leu Arg Arg Ser Pro Pro Arg Arg Ser Tyr Val Ala Pro Leu Thr Ala Gln Pro Ala Thr Tyr Arg Ala Gly Pro Ser Val Ser Leu Gly Ala Ala Tyr Arg Ala Gln Pro Ser Ala Ser Arg Ser Arg Ser Ala Ser Ser Ser Val Ser Leu Gly Ala Ala Tyr Arg Ala Gln Pro Ser Ala Ser Ser Ser Ala Ser Ser Ser Val Ser Leu Gly Ala Ala Tyr Arg Ala Gln Pro Ser Ala Ser	ro la ln 40 er
Asn Ser Thr Gly Gly Phe Asp Gly Gln Ala Arg Gln Pro Thr Pro Pro 195 Phe Phe Gly Arg Asp Arg Ser Pro Leu Arg Arg Ser Pro Pro Arg Arg Ser Tyr Val Ala Pro Leu Thr Ala Gln Pro Ala Thr Tyr Arg Ala Glove Ser Val Ser Leu Gly Ala Ala Tyr Arg Ala Gln Pro Ser Ala Ser Arg Ser Arg Ser Ala Ser Ser Val Ser Leu Gly Ala Ala Tyr Arg Ala Gln Pro Ser Ala Ser Ser Val Ser Leu Gly Ala Ala Tyr Arg Ala Gln Pro Ser Ala Ser Ser Val Ser Leu Gly Ala Ala Tyr Arg Ala Gln Pro Ser Ala Ser Ser Val Ser Leu Gly Ala Ala Tyr Arg Ala Gln Pro Ser Ala Ser Ser Val Ser Ser Ser Val Ser Leu Gly Ala Ala Tyr Arg Ala Gln Pro Ser Ala Ser Ser Val Ser Ser Ser Val Ser Leu Gly Ala Ala Tyr Arg Ala Gln Pro Ser Ala Ser Ser Val Ser	la ln 40 er
Phe Phe Gly Arg Asp Arg Ser Pro Leu Arg Arg Ser Pro Pro Arg Arg Arg Ser Pro Pro Arg Arg	la ln 40 er
Phe Phe Gly Arg Asp Arg Ser Pro Leu Arg Arg Arg Pro Pro Arg A	ln 40 er
210 215 220 220 220 225 230 245 245 250 250 250 250 250 250 250 250 250 25	ln 40 er
Ser Tyr Val Ala Pro Leu Thr Ala Gln Pro Ala Thr Tyr Arg Ala G 225 230 235 235 245 Pro Ser Val Ser Leu Gly Ala Ala Tyr Arg Ala Gln Pro Ser Ala So 245 250 255	40 er er
225 230 235 24 Pro Ser Val Ser Leu Gly Ala Ala Tyr Arg Ala Gln Pro Ser Ala Ser 245 250 255	40 er er
Pro Ser Val Ser Leu Gly Ala Ala Tyr Arg Ala Gln Pro Ser Ala Se 245 250 255	er er
245 250 255	er
bet dry var dry ryr arg rim dri tro mee rim ara om ara ara	
. 260 265 270	ln
Tyr Arg Ala Gln Pro Ser Val Ser Leu Gly Ala Pro Tyr Arg Gly G	
275 280 285	
Leu Ala Ser Pro Ser Ser Gln Ser Ala Ala Ala Ser Ser Leu Gly P	ro
290 295 300	
Tyr Gly Gly Ala Gln Pro Ser Ala Ser Ala Leu Ser Ser Tyr Gly G	ly
	20
Gln Ala Ala Ala Ala Ser Ser Leu Asn Ser Tyr Gly Ala Gln Gly Se	er
325 330 335	
Ser Leu Ala Ser Tyr Gly Asn Gln Pro Ser Ser Tyr Gly Ala Gln A	la
340 345 350	
Ala Ser Ser Tyr Gly Val Arg Ala Ala Ala Ser Ser Tyr Asn Thr G	ln
355 360 365	
Gly Ala Ala Ser Ser Leu Gly Ser Tyr Gly Ala Gln Ala Ala Ser Ty	yr
370 375 380	
Gly Ala Gln Ser Ala Ala Ser Ser Leu Ala Tyr Gly Ala Gln Ala Al	la
202	00
Ser Tyr Asn Ala Gln Pro Ser Ala Ser Tyr Asn Ala Gln Ser Ala Pr	ro
405 410 415	
Tyr Ala Ala Gln Gln Ala Ala Ser Tyr Ser Ser Gln Pro Ala Ala Ty	уr
420 425 430	٦_
Val Ala Gln Pro Ala Thr Ala Ala Tyr Ala Ser Gln Pro Ala Al	14
435 440 445	١
Tyr Ala Ala Gln Ala Thr Thr Pro Met Ala Gly Ser Tyr Gly Ala Gl 450 455 460	111
450 455 460 Pro Val Val Gln Thr Gln Leu Asn Ser Tyr Gly Ala Gln Ala Ser Me	et
	80
Gly Leu Ser Gly Ser Tyr Gly Ala Gln Ser Ala Ala Ala Ala Thr Gl	
485 490 495	- 2
Ser Tyr Gly Ala Ala Ala Tyr Gly Ala Gln Pro Ser Ala Thr Le	eu
500 505 510	
Ala Ala Pro Tyr Arg Thr Gln Ser Ser Ala Ser Leu Ala Ala Ser Ty	yΥ
515 520 525	
Ala Ala Gln Gln His Pro Gln Ala Ala Ala Ser Tyr Arg Gly Gln Pr	ro
530 535 540	
Gly Asn Ala Tyr Asp Gly Ala Gly Gln Pro Ser Ala Ala Tyr Leu Se	er
	50
Met Ser Gln Gly Ala Val Ala Asn Ala Asn Ser Thr Pro Pro Pro Ty	/r
565 570 575	
Glu Arg Thr Arg Leu Ser Pro Pro Arg Ala Ser Tyr Asp Asp Pro Ty	T
580 585 590	
Lys Lys Ala Val Ala Met Ser Lys Arg Tyr Gly Ser Asp Arg Arg Le	<u>u</u>

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600
         595
                                                 605
Ala Glu Leu Ser Asp Tyr Arg Arg Leu Ser Glu Ser Gln Leu Ser Phe
                         615
                                             620
Arg Arg Ser Pro Thr Lys Ser Ser Leu Asp Tyr Arg Arg Leu Pro Asp
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                                         635
Ala His Ser Asp Tyr Ala Arg Tyr Ser Gly Ser Tyr Asn Asp Tyr Leu
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<211> 339
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<213> Homo sapiens
<400> 1911
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120
cgcatcgacg atgaaagett cetcegeeca gttgageega cecaageege acegtgggeg
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ctgggaaaca ttcagcatgg cagcattcgc gattgctgg
339
<210> 1912
<211> 113
<212> PRT
<213> Homo sapiens
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Val Phe Pro Ser Gly Ala Arg Met Arg Leu Arg Pro Leu Leu Arg Ser
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Asp Gly His Glu Trp Arg Arg Gln Arg Ile Asp Asp Glu Ser Phe Leu
                            40
Arg Pro Val Glu Pro Thr Gln Ala Ala Pro Trp Ala Ala Ala His Ser
Gln Gln Ala Trp Trp Asn His Leu Lys Tyr Leu Arg Thr Ala Ala Arg
Glu Ala Leu Val Val Pro Leu Val Ile Glu Val Glu Gly Lys Phe Ala
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Gly Gln Val Thr Leu Gly Asn Ile Gln His Gly Ser Ile Arg Asp Cys
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Trp
<210> 1913
<211> 767
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<212> DNA
<213> Homo sapiens
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gegecagtae tegatetegt ecteceagee ttgteegaaa ecteegecaa teteategge
cagaggttgc gccagggatg tcacacctcc atccccacat cgaatctacg gtgagcttcg
teccagetgt egggeagtac aaggeaeete ggateaaget tteetggegt gaaetggtee
tggtacccat caatgccace cacetgcact ccaatccccc acaagttgtc caacacgccg
cagaattgcg tcgcagccac ccggaccttg ccatcaaggt ggcccgcccc accggaccag
420
caceggicet ceteaacete giegatacge gattgegiet ggeageteat egegieeatg
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caatgetgte caggetgace eggetgtggt cecageacea ceaeetteeg gteegeateg
600
ccaccaatcg tggtggggct actgcggtcg aggaggtcgt cgcccgcctg cgacaggagg
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atactegeca ggetttgeat geeggtgeeg aggttgtege egeaceg
 <210> 1914
 <211> 190
 <212> PRT
 <213> Homo sapiens
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 Ala Val Gly Gln Tyr Lys Ala Pro Arg Ile Lys Leu Ser Trp Arg Glu
                                 25
 Leu Val Leu Val Pro Ile Asn Ala Thr His Leu His Ser Asn Pro Pro
                                                  45
                             40
 Gln Val Val Gln His Ala Ala Glu Leu Arg Arg Ser His Pro Asp Leu
                                             60
 Ala Ile Lys Val Ala Arg Pro Thr Gly Pro Ala Pro Val Leu Leu Asn
                                          75
                     70
 Leu Val Asp Thr Arg Leu Arg Leu Ala Ala His Arg Val His Ala Gln
                                     90
 Glu Leu Asp Ser Leu Val Leu Ser Ser Pro Asp Gly Gly Asp Leu Arg
                                                      110
                                 105
             100
 Gly Ser Ala Met Leu Ser Arg Leu Thr Arg Leu Trp Ser Gln His His
                             120
 His Leu Pro Val Arg Ile Ala Thr Asn Arg Gly Gly Ala Thr Ala Val
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130
                         135
Glu Glu Val Val Ala Arg Leu Arg Gln Glu Gly Arg Arg His Ile Ala
145
                     150
                                         155
Val Gly Ser Leu Trp Ile Cys Asp Asp Glu Asn Phe Arg Ile His Thr
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Arg Gln Ala Leu His Ala Gly Ala Glu Val Val Ala Ala Pro
<210> 1915
<211> 571
<212> DNA
<213> Homo sapiens
<400> 1915
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ggaccetetg accgggeaca agggeagetg tgaggacaag gecacageca caaaccaace
tggcacacac ggctcagggc gaggcactgc cccatggggc tgcatgatcc acgctcacag
gtgtcattgt ctatgctcag gggggcttgg caccatggga aacccaccca gaacacatgg
agaagccaca gcacaacctc agcgcccgcc atgcaggacc ctgggtctca cccattgcac
ccaccgtgcg ggacccctgc gcctcacccg gaacatccac agtgtgggac tgctgcgtct
cacccactgc acctgccgtg caggatecet gagteteace cgccgcacce gecgtgcggg
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gcgtctcacc caccgcaccc gccgtgcggg a
571
<210> 1916
<211> 119
<212> PRT
<213> Homo sapiens
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Met Gly Leu His Asp Pro Arg Ser Gln Val Ser Leu Ser Met Leu Arg
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Gly Ala Trp His His Gly Lys Pro Thr Gln Asn Thr Trp Arg Ser His
            20
                                25
Ser Thr Thr Ser Ala Pro Ala Met Gln Asp Pro Gly Ser His Pro Leu
                            40
His Pro Pro Cys Gly Thr Pro Ala Pro His Pro Glu His Pro Gln Cys
                        55
                                            60
Gly Thr Ala Ala Ser His Pro Leu His Leu Pro Cys Arg Ile Pro Glu
65
                    70
                                        75
Ser His Pro Pro His Pro Pro Cys Gly Ile Pro Glu Ser His Pro Pro
                                    90
His Pro Pro Tyr Leu Pro His Pro Pro Cys Gly Thr Pro Ala Ser His
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110
                                105
            100
Pro Pro His Pro Pro Cys Gly
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<210> 1917
<211> 360
<212> DNA
<213> Homo sapiens
<400> 1917
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catecetatg geoeggtgaa gteggtaaag gtageaggte eggeeggeea eceageeeeg
qatttcgccg ccggatggtt gctcgaccgc ttggcagttc ccgtacatcg cacagtggcc
gactccccaa ggagacactt cccggtgact catttgcagt tcaatcggga gacaacccac
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360
<210> 1918
<211> 120
<212> PRT
<213> Homo sapiens
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1
Pro Gly Asp Ser Asp Met Ser Trp Ala Ala Ile Thr Leu Trp Arg Gly
                                25
Val Val Ala Ser Ala Leu Asp Arg His Pro Tyr Gly Pro Val Lys Ser
Val Lys Val Ala Gly Pro Ala Gly His Pro Ala Pro Asp Phe Ala Ala
                        55
Gly Trp Leu Leu Asp Arg Leu Ala Val Pro Val His Arg Thr Val Ala
                                        75
                    70
Asp Ser Pro Arg Arg His Phe Pro Val Thr His Leu Gln Phe Asn Arg
                                    90
Glu Thr Thr His Val Asp Val Asp Val Ile Asp Glu Arg Thr Val Arg
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            100
Val Cys Val Pro Gly Ser Pro Glu
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        115
<210> 1919
<211> 354
<212> DNA
<213> Homo sapiens
<400> 1919
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aggccagcgg gaaggtgtag acgaacagcc caaaggattc agcagtgtaa gtaccccacc
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agetegeggg cacegtatea tecegtgeeg tetecaceet acceetgeea attg
354
<210> 1920
<211> 118
<212> PRT
<213> Homo sapiens
<400> 1920
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Cys Leu Ser Leu Pro Gly Cys Ser His Pro Ser Cys Thr Ala Glu Ala
Trp Pro Arg Ala Ser Arg Pro Arg Pro Pro Pro Ser Ser Leu Pro Leu
Thr Lys His Trp Glu Pro Ala Arg Pro Arg Gln Ala Arg Pro Ala Gly
                        55
Arg Cys Arg Arg Thr Ala Gln Arg Ile Gln Gln Cys Lys Tyr Pro Thr
                                        75
Tyr Ala Leu Thr Lys Cys Arg Pro Pro Pro Ser Pro Thr Ser Arg His
                                    90
Arg Arg Arg Pro Ser Ser Arg Ala Pro Tyr His Pro Val Pro Ser Pro
                                105
            100
Pro Tyr Pro Cys Gln Leu
        115
<210> 1921
<211> 357
<212> DNA
<213> Homo sapiens
<400> 1921
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ctacacggcc gccacaccaa agttaatgcc accaggcgtc atcacacaga tgtgaggtgc
aggtgccact ccacagoogt gggcagacot gggagcccag ctcctcctgg tttcaccctc
cacactgccc accccatcct tctctcccag tctccactcc atcgaagcct cccagatgac
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357
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<210> 1922

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<211> 92
<212> PRT
<213> Homo sapiens
<400> 1922
Met Val Leu Tyr Thr Gln Gln Pro Leu Ser Ser Arg Asn Leu His Gly
                -5
Arg His Thr Lys Val Asn Ala Thr Arg Arg His His Thr Asp Val Arg
                                25
Cys Arg Cys His Ser Thr Ala Val Gly Arg Pro Gly Ser Pro Ala Pro
                            40
Pro Gly Phe Thr Leu His Thr Ala His Pro Ile Leu Leu Ser Gln Ser
                        55
Pro Leu His Arg Ser Leu Pro Asp Asp Phe Met Trp Gly Gln Glu Asn
                    70
Tyr Arg Ser Trp Leu Arg Arg Ala Xaa Cys Xaa Pro
<210> 1923
<211> 368
<212> DNA
<213> Homo sapiens
<400> 1923
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ggtagtgcac agaagaaaga atggttcagc aacattaaac tctcaggcta tggaatgacc
120
cagtatcaat atactgatca agagggaagc aaaggccatt catttaatct gcgattgttc
ccgttgcctt taaacggacg tatcttaaat gacttttatt ggaaggcaca ggcccaattc
aatggaaaca catcgacatt gggaagcagt ccacgtcttg tagacctatt tgtagagtgg
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360
aatcccag
368
<210> 1924
<211> 119
<212> PRT
<213> Homo sapiens
<400> 1924
Met Val Arg Lys Gly Leu Cys Val Ala Leu Leu Val Leu Val Thr Leu
                                    10
Ser Gly Ser Ala Gln Lys Lys Glu Trp Phe Ser Asn Ile Lys Leu Ser
Gly Tyr Gly Met Thr Gln Tyr Gln Tyr Thr Asp Gln Glu Gly Ser Lys
                            40
Gly His Ser Phe Asn Leu Arg Leu Phe Pro Leu Pro Leu Asn Gly Arg
                        55
Ile Leu Asn Asp Phe Tyr Trp Lys Ala Gln Ala Gln Phe Asn Gly Asn
```

```
65
                     70
                                         75
Thr Ser Thr Leu Gly Ser Ser Pro Arg Leu Val Asp Leu Phe Val Glu
                                     90
Trp Gln Lys Tyr Asp Tyr Phe Lys Val Lys Leu Gly Gln Phe Lys Arg
                                 105
Pro Phe Thr Phe Glu Asn Pro
        115
<210> 1925
<211> 427
<212> DNA
<213> Homo sapiens
<400> 1925
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ccccctgtg atttgaggct aatccctccc caccetgttc tggcacatgt geggtgccca
gggctccccc caggctgtga gcagataaag ccctgcgtgg cttcacaaca gtgactggtt
180
ctgagaaaca ggtccttgta caagcgacag ggagtgctca caccagatgt ggcagccct
240
ccacgccagg ctgtgtggtg cagccgcctg gtatatgtgt ccatcgctga tgaaaacagc
gttgtgtggt gcatgactgt tgtctgtttt cttcatggaa acaaggaaac ctaagcatta
aaacaacacc atccacgtct ggttccttag agcaaatgga agcaccaggc tctggtgcac
ggcgcgc
427
<210> 1926
<211> 104
<212> PRT
<213> Homo sapiens
<400> 1926
Met His His Thr Thr Leu Phe Ser Ser Ala Met Asp Thr Tyr Thr Arg
Arg Leu His His Thr Ala Trp Arg Gly Gly Ala Ala Thr Ser Gly Val
                                25
Ser Thr Pro Cys Arg Leu Tyr Lys Asp Leu Phe Leu Arg Thr Ser His
                            40
Cys Cys Glu Ala Thr Gln Gly Phe Ile Cys Ser Gln Pro Gly Gly Ser
Pro Gly His Arg Thr Cys Ala Arg Thr Gly Trp Gly Gly Ile Ser Leu
                    70
                                        .75
Lys Ser Gln Gly Gly Leu Pro His Trp Val Ser Met Gln Glu Gln Leu
                85
                                    90
Asn Arg Cys Leu Leu Glu Thr Leu
<210> 1927
<211> 516
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<212> DNA
<213> Homo sapiens
<400> 1927
nntctagaag actccaccta cttttcccca gactttcagc tctattctgg gaggcatgaa
acatctgctt tgacggtgga ggcaaccagt agcatcaggg aaaaagttgt tgaagatcct
ctttgtaact tccactcccc aaacttcctg aggatctcag aggtggaaat gagaggttcc
gaggatgegg cagetggaac agtattgeag eggetgatee aggaacaact geggtatgge
accccaaccg agaacatgaa cttgctggcc attcagcacc aggccacagg gagtgcagga
ccagcccatc ctacaaacaa cttttcttcc acggaaaacc tcactcaaga agacccacaa
atggtctacc agtcagcacg ccaagaaccg cagggtcaag aacaccagng tgganncaat
acggtgatgg agaaacaggt ccggtccacg cagcctcagc agaacaacga ggaactgccc
acttacgagg aggccaaagc acagcccttc acgcgt
516
<210> 1928
<211> 172
<212> PRT
<213> Homo sapiens
<400> 1928
Xaa Leu Glu Asp Ser Thr Tyr Phe Ser Pro Asp Phe Gln Leu Tyr Ser
Gly Arg His Glu Thr Ser Ala Leu Thr Val Glu Ala Thr Ser Ser Ile
            20
Arg Glu Lys Val Val Glu Asp Pro Leu Cys Asn Phe His Ser Pro Asn
                            40
Phe Leu Arg Ile Ser Glu Val Glu Met Arg Gly Ser Glu Asp Ala Ala
                        55
Ala Gly Thr Val Leu Gln Arg Leu Ile Gln Glu Gln Leu Arg Tyr Gly
                                        75
                    70
Thr Pro Thr Glu Asn Met Asn Leu Leu Ala Ile Gln His Gln Ala Thr
                                    90
Gly Ser Ala Gly Pro Ala His Pro Thr Asn Asn Phe Ser Ser Thr Glu
                                105
            100
Asn Leu Thr Gln Glu Asp Pro Gln Met Val Tyr Gln Ser Ala Arg Gln
                            120
        115
Glu Pro Gln Gly Gln Glu His Gln Xaa Gly Xaa Asn Thr Val Met Glu
                                            140
                        135
Lys Gln Val Arg Ser Thr Gln Pro Gln Gln Asn Asn Glu Glu Leu Pro
                                                             160
                                        155
                    150
Thr Tyr Glu Glu Ala Lys Ala Gln Pro Phe Thr Arg
                                    170
                165
<210> 1929
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1468

<211> 843

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<212> DNA
<213> Homo sapiens
<400> 1929
nncegeggae acteagggte tggggteeet etteeceaag aggeetgaet geetgggtgt
tctccaggta catgtccttc aaggagaaat acacttcctg gcctgggcct gggccagggg
ccttctgggc cttgtctgga gtgcccacag cagaggctgg cttcctggta ctatctgtgc
cagaggaccc aggccccgt gcagccctgc ctctgggctg ggtctgaacc tgctccacgc
ccaegggeec etgagteeca eaggagteag getegtetga getggggatg eagttttetg
aagaacggcg gctttgggct gccttctcta actctggctt ccgcaccttg cttggattcc
tcatctttct ttttcttctt ggccccactc tcctctttga gggctctctg aggccccagc
tocatggcgt cacagatgta tgtcagcaag ccatgctctc cgtcctctcc attctcgggg
gcagcctccc cgttggtggt cacttctcca gaagcaaact gttgatcagg cccaaacctg
agtgctgagc agtctcagtc tctccctcct gccaagccgc cagggtccca ccctcaggct
600
ccetggtagg gaccgagggg cccggcgctt gagccccgct caatcgccgc tttcgctgga
ageggteggg getgagettg egcagagtgt egaceteece aggeacegee ttetegtget
720
tecagetetg etegateteg egeagetttg eegeageett gegetteaac ttggegaace
agegetggtg gatettgtae teagteatgg tgeccacete ceaggaeeet gageaggaea
840
caa
843
<210> 1930
<211> 120
<212> PRT
<213> Homo sapiens
<400> 1930
Leu Pro Gly Cys Ser Pro Gly Thr Cys Pro Ser Arg Arg Asn Thr Leu
Pro Gly Leu Gly Leu Gly Gln Gly Pro Ser Gly Pro Cys Leu Glu Cys
            20
Pro Gln Gln Arg Leu Ala Ser Trp Tyr Tyr Leu Cys Gln Arg Thr Gln
                            40
Ala Pro Val Gln Pro Cys Leu Trp Ala Gly Ser Glu Pro Ala Pro Arg
    50
                                            60
Pro Arg Ala Pro Glu Ser His Arg Ser Gln Ala Arg Leu Ser Trp Gly
                                        75
                    70
Cys Ser Phe Leu Lys Asn Gly Gly Phe Gly Leu Pro Ser Leu Thr Leu
                                    90
Ala Ser Ala Pro Cys Leu Asp Ser Ser Ser Phe Phe Phe Leu Ala
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110
                                105
            100
Pro Leu Ser Ser Leu Arg Ala Leu
                            120
        115
<210> 1931
<211> 719
<212> DNA
<213> Homo sapiens
<400> 1931
acgegtagge etgageeget ceaeageeet ggggagggea gaaaaggagg aaagtaggea
gtgcaagaaa caggaggaaa ccccccagag cgcagcctcc tggaagcgga agggagcact
gaagaggagg tggttagtgg tgtcagaagc tgctgagaag ccagttagat aaagcggaga
agettectae taggacaget tecteccage ceagtgtgge caegetggtg tecteggtga
ccagacacgt ggccatgaat ttctcagtgt gctttattgt tgattaaatg cagtcggctc
acgaggctga ctttggaaac aggaggtccg tgggtcgtgg aataagaaag ggcatcatgg
ttgcagagga agggaaggaa gcccacggct gccttgggga gctttctgaa aggcaggtct
gatcatgcct ctctgggcta cggtctcctc acggtggctc ctggttggaa ctgaagtggt
eceettggte cetetetece ateteageat tagecaggae ttttggettg geggeeceag
cagggctgcc cccttgcaac acttettttc ccacatgatc gtgccttcca aacctacttc
cagegtegee etetteaggg ageettteat aaccacetet eeetteeact ggetaaagat
gaggttgagc aactgcagga cttgggacct tgttcctgcc cctgtggctg cctggatcc
719
 <210> 1932
 <211> 98
 <212> PRT
 <213> Homo sapiens
 <400> 1932
 Met Pro Leu Trp Ala Thr Val Ser Ser Arg Trp Leu Leu Val Gly Thr
                                     10
 Glu Val Val Pro Leu Val Pro Leu Ser His Leu Ser Ile Ser Gln Asp
                                 25
 Phe Trp Leu Gly Gly Pro Ser Arg Ala Ala Pro Leu Gln His Phe Phe
 Ser His Met Ile Val Pro Ser Lys Pro Thr Ser Ser Val Ala Leu Phe
                         55
 Arg Glu Pro Phe Ile Thr Thr Ser Pro Phe His Trp Leu Lys Met Arg
                     70
 Leu Ser Asn Cys Arg Thr Trp Asp Leu Val Pro Ala Pro Val Ala Ala
                                     90
                                                          95
                 85
 Trp Ile
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<210> 1933 <211> 295

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<212> DNA
<213> Homo sapiens .
<400> 1933
ggcgccgagc tgtgggcggc catggagcgc atgcctgccg acctgattat cctcgacctg
atgctgccgg gggataacgg cctcttgctg tgccagcgc tgcgccagca atacgcaaca
ccagtgatca tgctgaccgc catgggcgaa ctgagtgatc gcgtgggggg cctggaaatg
ggcgccgatg actacctgaa caaacctttc gatgcccgtg aattacttgc ccgggtgcgc
getgtaetge gteeggegtg tgaaaaccga cegacgttgg gegacgtgte gegee
295
<210> 1934
<211> 98
<212> PRT
<213> Homo sapiens
<400> 1934
Gly Ala Glu Leu Trp Ala Ala Met Glu Arg Met Pro Ala Asp Leu Ile
1
Ile Leu Asp Leu Met Leu Pro Gly Asp Asn Gly Leu Leu Cys Gln
                                25
            20
Arg Leu Arg Gln Gln Tyr Ala Thr Pro Val Ile Met Leu Thr Ala Met
                            40
Gly Glu Leu Ser Asp Arg Val Gly Gly Leu Glu Met Gly Ala Asp Asp
Tyr Leu Asn Lys Pro Phe Asp Ala Arg Glu Leu Leu Ala Arg Val Arg
                    70
Ala Val Leu Arg Pro Ala Cys Glu Asn Arg Pro Thr Leu Gly Asp Val
                85
Ser Arg
<210> 1935
<211> 298
<212> DNA
<213> Homo sapiens
<400> 1935
aceggtgtgg cgggcgcggc cttcaccacc atcggctcca ccgggccgac ggcgggttcg
caatacatcg tcgatacctt cctggtagtg gtgttcgggg gggcccaaag cctgttcggc
cccatcgcct cggcgttcgt gattgcccag acccaatcgc tgtcggagtt tttcctcagt
ggetegatgg ecaaggtget gacettgteg teggtgatte tgateetgat getgegeeeg
240
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caagggttgt tctccatcaa agtgcgcaag taaaggcgag cagataaggg tttaagca
298
<210> 1936
<211> 90
<212> PRT
<213> Homo sapiens
<400> 1936
Thr Gly Val Ala Gly Ala Ala Phe Thr Thr Ile Gly Ser Thr Gly Pro
Thr Ala Gly Ser Gln Tyr Ile Val Asp Thr Phe Leu Val Val Val Phe
                                25
Gly Gly Ala Gln Ser Leu Phe Gly Pro Ile Ala Ser Ala Phe Val Ile
Ala Gln Thr Gln Ser Leu Ser Glu Phe Phe Leu Ser Gly Ser Met Ala
Lys Val Leu Thr Leu Ser Ser Val Ile Leu Ile Leu Met Leu Arg Pro
                                         75
                    70
Gln Gly Leu Phe Ser Ile Lys Val Arg Lys
<210> 1937
<211> 513
<212> DNA
<213> Homo sapiens
<400> 1937
gcacggcgca cagtaacacc aactcgaaag agaccttatg aatgcaaggt gtgcgggaaa
geetttaatt eteceaattt attteaaate cateaaagaa eteacaetgg aaagaggtee
120
tataaatgta gggaaatagt gagageette acagttteca gtttettteg aaaacatgga
aaaatgcata ctggagaaaa acgctatgaa tgtaaatact gtggaaaacc tatcgattat
cccagtttat ttcaaattca tgttagaact cactctggag aaaaacccta caaatgtaaa
300
caatgtggta aagcetteat tteegeaggt taegttegga cacatgaaat cagateteae
gegetggaga aateccacca atgtcaggaa tgtgggaaga aactcagttg ttecagttee
cttcacagac atgaaagaac tcatagtgga ggaaaactct acgaatgtca aaaatgtgac
caagtettta gatgteecae gteectteae geg
513
<210> 1938
<211> 171
<212> PRT
<213> Homo sapiens
<400> 1938
Ala Arg Arg Thr Val Thr Pro Thr Arg Lys Arg Pro Tyr Glu Cys Lys
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5
                                     10
Val Cys Gly Lys Ala Phe Asn Ser Pro Asn Leu Phe Gln Ile His Gln
Arg Thr His Thr Gly Lys Arg Ser Tyr Lys Cys Arg Glu Ile Val Arg
                             40
Ala Phe Thr Val Ser Ser Phe Phe Arg Lys His Gly Lys Met His Thr
                         55
Gly Glu Lys Arg Tyr Glu Cys Lys Tyr Cys Gly Lys Pro Ile Asp Tyr
                    70
                                         75
Pro Ser Leu Phe Gln Ile His Val Arg Thr His Ser Gly Glu Lys Pro
                85
                                    90
Tyr Lys Cys Lys Gln Cys Gly Lys Ala Phe Ile Ser Ala Gly Tyr Val
            100
                                 105
                                                     110
Arg Thr His Glu Ile Arg Ser His Ala Leu Glu Lys Ser His Gln Cys
Gln Glu Cys Gly Lys Lys Leu Ser Cys Ser Ser Ser Leu His Arg His
                        135
                                             140
Glu Arg Thr His Ser Gly Gly Lys Leu Tyr Glu Cys Gln Lys Cys Asp
                    150
                                        155
Gln Val Phe Arg Cys Pro Thr Ser Leu His Ala
                165
<210> 1939
<211> 1233
<212> DNA
<213> Homo sapiens
<400> 1939
geeggeageg eegeteecca gggagggagt eegeageetg aggtettete caagaaaaaa
aaagaaaaaa aaacaacatg gctgcaaagg agaaactgga ggcagtgtta aatgtggccc
tgagggtgcc aagcatcatg ctgttggatg tcctgtacag atgggatgtc agctcctttt
tecageagat ecaaagaagt ageettagta ataaceetet tttecagtat aagtatttgg
ctcttaatat gcattatgta ggttatatct taagtgtggt gctgctaaca ttgcccaggc
agcatctggt tcagctttat ctatattttt tgactgctct gctcctctat gctggacatc
aaatttccag ggactatgtt cggagtgaac tggggtttgc ctatgaggga ccaatgtatt
tagaacctct ctctatgaat cggtttacca cagccttaat aggtcagttg gtggtgtgta
480
ctttatgctc ctgtgtcatg aaaacaaagc agatttggct gttttcagct cacatgcttc
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ctctgctagc acgactctgc cttgttcctt tggagacaat tgctatcatc aataaatttg

ctatgatttt tactggattg gaagttetet attttettgg gtetaatett ttggtacett

ataaccttgc taaatctgca tacagagaat tggttcaggt agtggaggta tatggccttc

tegeettggg aatgteeetg tggaateaac tggtagteec tgttetttte atggttttet

780

ggctcgtctt atttgctctt cagatttact cctatttcag tactcgagat cagcctgcat cacgtgagag gettettte ettttetga caaggtaatt aataagagee tatgataeta tatataacct tagaaagaga aaactttgat ctaggaatag taagttttgc agattacttt tategtteat gttacacaac ttegtatttt gttaagatag gatttteatt caetggatae 1020 ctaggtttgg caatgcagag aggtgctaac ataataatgt ggtttatttg gctgcactat ggaccagagt gtagcaaatg atttgtggaa aggtacatag cacatcgtaa aagtattttt tcaatttcaa gttaaaatta ttgggtcaat cagaaaaaag tatattataa aaataacatt tattgagtat tttaaatgta ccataccatt naa 1233 <210> 1940 <211> 266 <212> PRT <213> Homo sapiens <400> 1940 Met Ala Ala Lys Glu Lys Leu Glu Ala Val Leu Asn Val Ala Leu Arg 10 Val Pro Ser Ile Met Leu Leu Asp Val Leu Tyr Arg Trp Asp Val Ser 25 Ser Phe Phe Gln Gln Ile Gln Arg Ser Ser Leu Ser Asn Asn Pro Leu 40 Phe Gln Tyr Lys Tyr Leu Ala Leu Asn Met His Tyr Val Gly Tyr Ile 60 55 Leu Ser Val Val Leu Leu Thr Leu Pro Arg Gln His Leu Val Gln Leu 75 70 Tyr Leu Tyr Phe Leu Thr Ala Leu Leu Leu Tyr Ala Gly His Gln Ile 90 Ser Arg Asp Tyr Val Arg Ser Glu Leu Gly Phe Ala Tyr Glu Gly Pro 110 105 100 Met Tyr Leu Glu Pro Leu Ser Met Asn Arg Phe Thr Thr Ala Leu Ile 120 Gly Gln Leu Val Val Cys Thr Leu Cys Ser Cys Val Met Lys Thr Lys 140 135 Gln Ile Trp Leu Phe Ser Ala His Met Leu Pro Leu Leu Ala Arg Leu 155 150 Cys Leu Val Pro Leu Glu Thr Ile Ala Ile Ile Asn Lys Phe Ala Met 170 165 Ile Phe Thr Gly Leu Glu Val Leu Tyr Phe Leu Gly Ser Asn Leu Leu 185 180 Val Pro Tyr Asn Leu Ala Lys Ser Ala Tyr Arg Glu Leu Val Gln Val 205 200 Val Glu Val Tyr Gly Leu Leu Ala Leu Gly Met Ser Leu Trp Asn Gln 215 Leu Val Val Pro Val Leu Phe Met Val Phe Trp Leu Val Leu Phe Ala 235 Leu Gln Ile Tyr Ser Tyr Phe Ser Thr Arg Asp Gln Pro Ala Ser Arg

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255
                245
Glu Arg Leu Leu Phe Leu Phe Leu Thr Arg
<210> 1941
<211> 411
<212> DNA
<213> Homo sapiens
<400> 1941
ctggggccct gccccacage atcatgatgg ggaaactccc cctgggggtc gtctccctt
atgtgaagat gagttcgggg ggctacacgg accccctgaa attctacgcc accagctact
gcacageeta eggtegggag gattteaage eeegtgtggg eagteaegta ggeaeegget
acaaatcaaa tttccagccc gtggtctcat gccaagccag tctggaggcc ttagacaacc
cggccagggg ggaacaagcc caggaccatt tccagtctgt ggccagccag agctaccgcc
ccctggaggt gcctgacggc aagcatcccc tgccctggag catgcgccag accagctcag
gctatgggcg ggagaagccc agtgcgggtc ccccaccaa ggaggtccgg a
411
<210> 1942
<211> 129
<212> PRT
<213> Homo sapiens
<400> 1942
Met Met Gly Lys Leu Pro Leu Gly Val Val Ser Pro Tyr Val Lys Met
                                    10
Ser Ser Gly Gly Tyr Thr Asp Pro Leu Lys Phe Tyr Ala Thr Ser Tyr
                                25
Cys Thr Ala Tyr Gly Arg Glu Asp Phe Lys Pro Arg Val Gly Ser His
Val Gly Thr Gly Tyr Lys Ser Asn Phe Gln Pro Val Val Ser Cys Gln
Ala Ser Leu Glu Ala Leu Asp Asn Pro Ala Arg Gly Glu Gln Ala Gln
Asp His Phe Gln Ser Val Ala Ser Gln Ser Tyr Arg Pro Leu Glu Val
                                    90
Pro Asp Gly Lys His Pro Leu Pro Trp Ser Met Arg Gln Thr Ser Ser
                                105
                                                    110
            100
Gly Tyr Gly Arg Glu Lys Pro Ser Ala Gly Pro Pro Thr Lys Glu Val
                                                125
                            120
Arg
<210> 1943
<211> 386
<212> DNA
<213> Homo sapiens
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<400> 1943

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nagaaacatt cagggctcca acagggtgga aaacatgagg ctgcaggatg tttaacagga
gtetttgetg cageteetet tggageettt aacgagatae tatcatgeet atgaactgee
acacagatgt acatggcata gcactgccca aaagtatcag cccaaggaac cctactttcc
ccagcaacat ctaactcaga aatgctgatc tttggcctca atctggtccc aaaatacctc
cagggtattt tgggcttcgg tgtgttcaca cacttggtca tgtaaatctg aacacagact
ctctctgcct tggcaagaac cccccacacc cccatagata attacaccct ttggttctcc
ctctgcaatc tcacctgcta gagacg
386
<210> 1944
<211> 111
<212> PRT
<213> Homo sapiens
<400> 1944
Met Gly Val Trp Gly Val Leu Ala Lys Ala Glu Arg Val Cys Val Gln
1
Ile Tyr Met Thr Lys Cys Val Asn Thr Pro Lys Pro Lys Ile Pro Trp
Arg Tyr Phe Gly Thr Arg Leu Arg Pro Lys Ile Ser Ile Ser Glu Leu
Asp Val Ala Gly Glu Ser Arg Val Pro Trp Ala Asp Thr Phe Gly Gln
                        55
Cys Tyr Ala Met Tyr Ile Cys Val Ala Val His Arg His Asp Ser Ile
                    70
                                        75
Ser Leu Lys Ala Pro Arg Gly Ala Ala Ala Lys Thr Pro Val Lys His
                                    90
Pro Ala Ala Ser Cys Phe Pro Pro Cys Trp Ser Pro Glu Cys Phe
                                105
<210> 1945
<211> 443
<212> DNA
<213> Homo sapiens
<400> 1945
nacgogtcac gaagogogot oggoccacgt ggotccaagg gogtccacgo gcccctcctc
gaccgattgg tgtcgaacat ggcacggtgg catgcgacgc gcaccaagat ccagctcaag
ctcgcgatcc agcgantcgg catgctacag gagaaaaaag ccgcactgca taaaaaagtg
cgactggaaa ttgcggacnn tcgtagacgc caaaagcttg aatctgcgcg cgtcaaaacc
gaatcgctga tcatggacga tatacatttg gagttgcttg aactgcttga gctctactgt
300
```

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gagacactet atgecagatt eggattaeta gaaggaegeg acaatgagee tgatgatgeg
360
atcogogago ogatgatogo cattattoat goggotoato goacagaggt gaaggaacta
catgtgctcc aaaacatgct gaa
443
<210> 1946
<211> 147
<212> PRT
<213> Homo sapiens
<400> 1946
Xaa Ala Ser Arg Ser Ala Leu Gly Pro Arg Gly Ser Lys Gly Val His
Ala Pro Leu Leu Asp Arg Leu Val Ser Asn Met Ala Arg Trp His Ala
            20
                                25
Thr Arg Thr Lys Ile Gln Leu Lys Leu Ala Ile Gln Arg Xaa Gly Met
                            40
Leu Gln Glu Lys Lys Ala Ala Leu His Lys Lys Val Arg Leu Glu Ile
                                             60
                        55
Ala Asp Xaa Arg Arg Arg Gln Lys Leu Glu Ser Ala Arg Val Lys Thr
                    70
                                         75
Glu Ser Leu Ile Met Asp Asp Ile His Leu Glu Leu Leu Glu Leu Leu
                                     90
                85
Glu Leu Tyr Cys Glu Thr Leu Tyr Ala Arg Phe Gly Leu Leu Glu Gly
            100
                                105
Arg Asp Asn Glu Pro Asp Asp Ala Ile Arg Glu Pro Met Ile Ala Ile
Ile His Ala Ala His Arq Thr Glu Val Lys Glu Leu His Val Leu Gln
    130
                        135
                                             140
Asn Met Leu
145
<210> 1947
<211> 472
<212> DNA
<213> Homo sapiens
<400> 1947
cggccgtgta ggccgtgacg gtgaccaaca gagccacagc gggcccgctg taggcgggag
gactgtgccg caggtgcagg agggtcagat ggaaacaaaa ggcgcaggcg gcctccacaa
gegeeeegtg gggeaeggat gtgegeaggg eegagetgea getetgggee atgaggetet
grageaggtg caggtcactg ageteccagg cecageagag gegegtcagg gtgcaggegg
cetqcatqce caqeecetqt geegecaget teageagegt geeaggeaga gaeteetegg
ccatgaggaa ctcctgcagg gacacggtgg ggttggccga ggccccgtcc aaggtgaccc
cgtgcgccag gaagagcagg aagagcaggg tgagcagcag gtcaggccca aagtccccag
420
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cccagggccc gagctcgaac agcgtcctca tctccaggaa gcaggccccg ag
472
<210> 1948
<211> 150
<212> PRT
<213> Homo sapiens
<400> 1948
Met Arg Thr Leu Phe Glu Leu Gly Pro Trp Ala Gly Asp Phe Gly Pro
                                    10
                 5
Asp Leu Leu Thr Leu Leu Phe Leu Leu Phe Leu Ala His Gly Val
                                25
Thr Leu Asp Gly Ala Ser Ala Asn Pro Thr Val Ser Leu Gln Glu Phe
                            40
Leu Met Ala Glu Glu Ser Leu Pro Gly Thr Leu Leu Lys Leu Ala Ala
Gln Gly Leu Gly Met Gln Ala Ala Cys Thr Leu Thr Arg Leu Cys Trp
                    70
                                        75
Ala Trp Glu Leu Ser Asp Leu His Leu Leu Gln Ser Leu Met Ala Gln
                85
                                    90
Ser Cys Ser Ser Ala Leu Arg Thr Ser Val Pro His Gly Ala Leu Val
                                                     110
                                105
            100
Glu Ala Ala Cys Ala Phe Cys Phe His Leu Thr Leu Leu His Leu Arg
                                                 125
                            120
His Ser Pro Pro Ala Tyr Ser Gly Pro Ala Val Ala Leu Leu Val Thr
                        135
Val Thr Ala Tyr Thr Ala
                    150
<210> 1949
<211> 395
<212> DNA
<213> Homo sapiens
<400> 1949
acgcgttgag ggaggcgaca tgcttcatga gcgcttggcg ccactgctca agcgacatct
geceettget gatgttgeaa ggeggaeagg aeggeatgta attegaeteg aegteaeget
120
ceggatgeet egacgggaeg etcacaaget tecattggee attegegggt egettggtet
cgaccgcgcg tacaaccggg tctacatggt cgccatgcca ccgatcgggc aatggcattc
cacagtacgc gcagcggccg tcgtatttgc gccggagccg atcgcgctgt gctttcgtca
geeggetcae getttatget ceaeggeagg tgtggeagea teetggeagg egacteeaag
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395
<210> 1950
<211> 125
<212> PRT
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<213> Homo sapiens <400> 1950 Met Leu His Glu Arg Leu Ala Pro Leu Leu Lys Arg His Leu Pro Leu Ala Asp Val Ala Arg Arg Thr Gly Arg His Val Ile Arg Leu Asp Val Thr Leu Arg Met Pro Arg Arg Asp Ala His Lys Leu Pro Leu Ala Ile Arg Gly Ser Leu Gly Leu Asp Arg Ala Tyr Asn Arg Val Tyr Met Val Ala Met Pro Pro Ile Gly Gln Trp His Ser Thr Val Arg Ala Ala Ala Val Val Phe Ala Pro Glu Pro Ile Ala Leu Cys Phe Arg Gln Pro Ala 90 85 His Ala Leu Cys Ser Thr Ala Gly Val Ala Ala Ser Trp Gln Ala Thr 105 Pro Arg Ser Ala Pro Ala Ser Ser Leu Thr Ala Pro Gly 120 <210> 1951 <211> 363 <212> DNA <213> Homo sapiens <400> 1951 eggeegeege eteteegete eegggeeeee geegeeaeeg egeeeeege gggagatgga acageggaac eggeteggtg eceteggata cetgeegeet etgetgetge atgeeetget getettegtg geegacgetg catteacaga agteeccaaa gatgtgacag taegggaggg agacqacatc gaaatgccct gcgcgttccg ggccagcgga gccacctcgt attcgctgga gattcagtgg tggtacctca aggagccacc cegggagctg ctgcacgagc tggcgctcag cgtgccgggc gcccggagca aggtaacaaa taaggatgca actaaaatca gcaccgtacg 360 cgt 363 <210> 1952 <211> 110 <212> PRT <213> Homo sapiens <400> 1952 Arg Pro Pro Leu Arg Ser Arg Ala Pro Ala Ala Thr Ala Pro Pro 1 Ala Gly Asp Gly Thr Ala Glu Pro Ala Arg Cys Pro Arg Ile Pro Ala Ala Ser Ala Ala Ala Cys Pro Ala Ala Leu Arg Gly Arg Arg Cys Ile

His Arg Ser Pro Gln Arg Cys Asp Ser Thr Gly Gly Arg Arg His Arg

```
60
Asn Ala Leu Arg Val Pro Gly Gln Arg Ser His Leu Val Phe Ala Gly
                    70
Asp Ser Val Val Val Pro Gln Gly Ala Thr Pro Gly Ala Ala Ala Arg
                                    90
Ala Gly Ala Gln Arg Ala Gly Arg Pro Glu Gln Gly Asn Lys
                                105
<210> 1953
<211> 329
<212> DNA
<213> Homo sapiens
<400> 1953
acgcgtcagc ctgagcccaa taactataaa agagtcgcaa ccatgactgt gctattgagt
gagegeagee agatttteeg gggtgeegat geetaegegg tgteggaeta egteaaceag
catgtgggca gecaetgeat tegeetgeet eccaagggee ggceaeggge gagtateage
categoacct ttgccagect ggacetgtge egcateaget aeggegetee ggtaegggte
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<213> Homo sapiens
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                             40
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Leu Pro Pro Lys Gly Arg Pro Arg Ala Ser Ile Ser His Arg Thr Phe
                                             60
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Ala Ser Leu Asp Leu Cys Arg Ile Ser Tyr Gly Ala Pro Val Arg Val
                                         75
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 Gly His Cys Arg Ser Ser Ser Arg Gly Glu Asp Asp Val
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 <213> Homo sapiens
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120
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<211> 127
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                            40
Lys Thr Ala Lys Gln Ala Met Asn Ala Ala Lys Gln Phe His Trp Asn
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Thr Arg Leu Gln Gln Gln Trp Lys Thr Trp Ile Leu Pro Val His Asn
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                                        75
Gly Thr Val Ser Glu Phe Phe Thr Gln Gln Lys Thr Leu Leu Asp Glu
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420
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<211> 175
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Arg Gly His Gly Pro Tyr Leu Leu Gly Arg Arg Pro Ala Gly Ala Ala
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Val Gly Glu Gly Pro Leu Ala Arg Ser Trp Glu Val Arg Pro Gly Thr
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Val Trp Arg Arg Phe Pro Val Arg Ser Arg Val Glu Gly Ala Phe Arg
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Gly Asp Cys Gln His Glu Pro Gln Pro Thr Glu Phe Cys Asp Arg Ala
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Ser Pro Gln Ser Gly Asp Pro Gly Glu Gly Ala Asn Phe Ser Pro Leu
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                                 105
            100
Pro Thr Ser Leu Pro Ala Gly Val Pro Gly Pro Pro Ala Arg Ala Ala
                             120
Leu Gly Gly Leu His Arg Pro Phe Pro Leu Pro Ala Leu Pro Gln Ala
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Gly Glu Arg Pro Trp Pro Xaa Glu Gly Pro Ala Ala Ala Gly Ser Gly
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Val Leu Leu Pro Gln Pro Pro Pro His Gly Thr Gly Leu Asn Arg
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<211> 378
<212> DNA
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Gly Thr Phe Leu Ala Asp Asp Thr Tyr Gln Val Val Lys Gly Ala Ser
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                            40
Gly Lys Tyr Thr Met Ser Gly Val Val Val Gly Ala Lys Thr Asp Gly
                        55
                                             60
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Asp Lys Val Ser Ser Gln Pro Phe Thr Met Ser Trp Asp Val Leu Lys
                    70
                                        75
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aggetagagg aegtgeatea eegeeetgag tgeaggeete eegagteeee aggaeeaegg
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ctqaactccc tgaagaacaa gctgtccagc gaagcctgga ggaaatcttg ccagcctgtg
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<212> PRT
<213> Homo sapiens
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Pro Glu Cys Arg Pro Pro Glu Ser Pro Gly Pro Arg Glu Lys Thr Asn
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                                            60
Val Gly Glu Ala Val Gly Ser Glu Pro Arg Thr Val Ser Arg Arg Tyr
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                                        75
Leu Asn Ser Leu Lys Asn Lys Leu Ser Ser Glu Ala Trp Arg Lys Ser
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Cys Gln Pro Val Thr Leu Ser Gly Ser Gly Thr Gln Glu Pro Glu Lys
                                105
Lys Ile Val Gln Glu Leu Leu Glu Thr Glu Gln Ala Tyr Val Ala Arg
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<211> 323
<212> DNA
<213> Homo sapiens
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cacagetgee tggetetteg gegteagtee accacettet geagetetee etcaceetgg
cgaccactca ggcatgcatc tcgcgggccc ccttcagacc tctcggggtc atcttcccct
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<211> 107
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Leu Pro Leu Leu Ser Ser Leu Ser His Ser Cys Leu Ala Leu Arg Arg
                            40
                                                45
Gln Ser Thr Thr Phe Cys Ser Ser Pro Ser Pro Trp Arg Pro Leu Arg
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His Ala Ser Arg Gly Pro Pro Ser Asp Leu Ser Gly Ser Ser Ser Pro
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Ala Arg Ala Arg His Lys Met Thr Ile Ala Ala Leu Glu Ser Lys Leu
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Ala Gln Ala Glu Gln Leu Glu Gln Glu Thr Arg Glu Arg Ile Leu
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Ser Gly Lys Leu Val Pro Lys Ser Lys Lys Arg Phe Lys Glu Val Val
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<211> 94
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<213> Homo sapiens
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Trp Ala Phe Gln Ser Ala Ala Trp Leu Val Asp Cys Thr Gly Ser His
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Leu Ala Asp Arg Thr Ala Leu Asp Arg Ala Leu Arg Ser Tyr His Arg
                        55
Tyr His Arg His Ser Leu Gly Trp His Glu Arg Leu Ile Ser Arg Tyr
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Asn Ala Glu Ser His Cys Gly Ser Leu Met Glu Arg Asp Ile Thr Asn
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Cys Ser Ser Pro Glu Ile Ser Ala Glu Leu Ile Gly Gln Phe Ser Thr
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Lys Lys Asn Lys Gln Glu Leu Thr Gln Asp Lys Gly Ala Ser Leu Glu
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Gly Ile Asp Leu Ser Pro Ala Arg Ser Phe Ser Ala Trp Ala Leu Arg
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1490

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Val Gly Val Gly Leu Cys Leu Arg Arg Asp Val Ala Arg Ser Leu Arg
Gln Arg Ile Ala Asn Leu Leu Thr Ala Arg Arg Val Gly Thr Arg
Leu Leu Pro Arg Leu Ala Gln Leu Gly Ala His Cys Thr Gln Arg Ile
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Gln Leu His Glu Arg Leu Ala Arg Arg
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<213> Homo sapiens
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.	290	۰	~1	3	63	295	3	~ 3	***	C	300		Glu	Glu	Thr
305	Arg	Ser	GIU	Asp	310	GIU	ASP	GIU	nis	315	GIU	GIU	924	0.4	320
	G1 v	Sa~	Sar	Ala		Glu	Glu	Sar	Glu		Glu	Glu	Ser	Glu	
	GLY	261	361	325	361	GIU	GIU	261	330	361	GIU	010		335	
212	Gln	Sar	Gln	Ser	Gln	Δla	Asn	Glu		Glar	Glu	Asp	Asp		Phe
A10	GIII	361	340	001	G 111	714		345	O1u	914	924		350		
Glv	Val	Glu		Leu	T.011	Δla	Δτσ	_	Glu	Glu	Gln	Ser		Ala	Asp
Cry	V 44 2	355	- 7 -		204	71.24	360					365			
Δla	Gl v		Glv	Pro	Pro	Thr		Glv	Pro	Thr	Thr		Gly	Pro	Lys
	370		- -,			375		,			380		•		•
Lvs		Ile	Thr	Asp	Ile		Ala	Ala	Ala	Glu	Ser	Leu	Gln	Pro	Lys
385					390					395					400
	Tyr	Thr	Leu	Ala	Thr	Thr	Gln	Val	Lys	Thr	Pro	Ile	Pro	Leu	Leu
•	•			405					410					415	
Leu	Arg	Gly	Gln	Leu	Arg	Glu	Tyr	Gln	His	Ile	Gly	Ļeu	Asp	Trp	Leu
	_	_	420					425					430		
Val	Thr	Met	Tyr	Glu	Lys	Lys	Leu	Asn	Gly	Ile	Leu	Ala	Asp	Glu	Met
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	450					455					460				
Cys	Glu	Lys	Gly	Asn	Trp	Gly	Pro	His	Leu		Ile	Val	Pro	Thr	
465					470					475			_	_	480
Val	Met	Leu	Asn	Trp	Glu	Met	Glu	Leu		Arg	Trp	Cys	Pro		Phe
				485					490		_	_	_	495	
Lys	Ile	Leu		Tyr	Tyr	Gly	Ala		Lys	GIU	Arg	гÀг		ьys	Arg
		_	500	-				505	***	17-7	C	T3.0	510	c - ~	The case
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There		Tla	T.011	Asp	Glu		Gln	Δsn	Tle	Lvs		Phe	Lvs	Ser	Gln
545	Ten	116	Deu	ASP	550	ALU	4111			555			-1-		560
	Tro	Gln	Ser	Leu		Asn	Phe	Asn	Ser		Arq	Arq	Leu	Leu	Leu
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Thr	Glv	Thr	Pro	Leu	Gln	Asn	Ser	Leu	Met	Glu	Leu	Trp	Ser	Leu	Met
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His	Phe	Leu	Met	Pro	His	Val	Phe	Gln	Ser	His	Arg	Glu	Phe	Lys	Glu
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Trp	Phe	Ser	Asn	Pro	Leu	Thr	Gly	Met	Ile	Glu	Gly	Ser	Gln	Glu	Tyr
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Asn	Glu	Gly	Leu	Val	Lys	Arg	Leu	His	Lys	Val	Leu	Arg	Pro	Phe	
625					630					635					640
Leu	Arg	Arg	Val	Lys	Val	Asp	Val	Glu		Gln	Met	Pro	Lys		Tyr
				645					650			_	_	655	_
Glu	His	Val	Ile	Arg	Cys	Arg	Leu		Lys	Arg	Gln	Arg		Leu	Tyr
			660	_				665		~1		•	670	m\r	a 3
Asp	Asp		Met	Ala	Gln	Thr		Thr	ьуs	GIU	Thr		ATS	ınr	стА
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			725					730			_		735	
Asp Val	His	Pro	Leu	Gln	Arg	Ile		Met	Gly	Arg	Phe		Leu	Ile
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Leu Gln	Pro	Val	Pro	Lys	Gln	Glu	Gly	Arg	Thr	Val	Val	Val	Val	Asn
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Pro Glu	Leu	Ser	Ala	Gln	Pro	Thr	Pro	Gly	Pro	Val	Pro	Gln	Val	Leu
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850					855					860				
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Asn Ser	Glv	Ser	Leu		Gln	Val	Leu	Pro	Ser	Pro	Leu	Gly	Val	Leu
ADII OCI	1		885					890				•	895	
Ser Gly	Thr	Ser		Pro	Pro	Thr	Pro		Leu	Ser	Leu	Lvs	Pro	Thr
Der dry		900	•				905					910		
Pro Pro	Δla		Val	Ara	Leu	Ser		Ala	Pro	Pro	Pro	Gly	Pro	Ser
PIO PIO	915	110				920					925	2		
Ser Leu		Tare	Pro	1.011	ጥኮተ		Pro	Pro	Glv	Tvr		Phe	Pro	Pro
930		Lys	110	200	935				,	940				
Ala Ala		Thr	Thr	ጥኮተ		Thr	Thr	Thr	Ala	-	Ala	Thr	Thr	Thr
945	AIG	1111	1111	950	-				955					960
Ala Val	Dro	Δla	Dro		Pro	λla	Pro	Gln		Leu	Ile	Leu	Ser	Pro
Ala vai	220	AIG	965					970					975	
Asp Met	Gln	Δla		T. 11	Pro	Ser	GIV	_	Val	Val	Ser	Ile	-	Gln
ASD MEC	G111	980	~~ y	204	120		985					990	2	
Leu Ala	ca-		λl =	Gln	Ara	Dro		Δla	Δen	Δla	Glv		Ser	Lvs
Leu Ala	995	Deu	ALG	GIII	ALG	1000		niu	7.511		100			-1-
Pro Leu		Dha	~1 ~	т1.	Gl n			Lare	Len	Th >			Glv	Δla
		Pne	GIII	116	1019		ASII	БУЗ	Deu	1020			- 1	****
101 Gln Val		@1m	T 011	7 T ~			Gl n	Dro) ~ c			Gln	Met	Pro
	Arg	GIII	Leu	1030		GLY	GIII	<i>P</i> 10	1035		DCU	G111		1040
1025 Pro Thr	14-4	1101	2			C111	17-1	1751			V=1	V=1	Δτα	
Pro inr	Met	val			1111	GLY	Val	1050		116	VAI	Val	1055	_
Ala Pro	>	3	1049		mb -	Dro	17-1			Lau	בות	Pro		
Ala Pro	Arg			Leu	1111	PIO	106		PIO	neu	AIA	1070		110
	D	1060		G3		Dwa			T 011	7 cm	Dro			Thr
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Leu Thr		GIY	Arg	Leu			Pro	Thr	Leu			Ald	Arg	MIG
109					1099		_	_	_	1100			••- 3	•••
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1105				1110			_		1115				_	1120
Ser Pro	Ser	Pro			Ser	Ala	Ser			GIY	ATa	ALA		
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Thr Ile	Ser	Ser	Pro	Leu	His	Val			Ser	Leu	Pro			Ala
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Ser Ser	Pro	Met	Pro	Ile	Pro	Asn	Ser	Ser	Pro	Leu	Ala	Ser	Pro	Val

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Dro			Leu	בות	Dro			Car	ui c	17-1			Lau	λοπ	Ser
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		71 -	Dwa	21-			D	17-7	T			21-	C ~ ~		
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Ala	Ser	Pro	Phe	Pro	Ser	Ala	Pro	Asn	Pro	Ala	Pro	Ala	Gln	Ala	Ser
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Leu	Leu			Ala	Ser	Ser			Gln	Ala	Leu			Pro	Leu
33 -	D	131				~1	132		- 3 -	•		132		D	77-
ALA			Ala	Ата	Pro			Ата	TTE	ьeu			ser	PIO	Ala
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Leu	Ser	Leu	Thr	Pro	Ala	Ser	Ser	Leu	Val	Pro	Thr	Pro	Ala	Gln	Thr
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Leu	Ala			Pro	Pro	Leu			Ala					Pro	Ala
	1490)				1495	;				1500)			
Pro	Ala	His	Thr	Leu	Thr	Leu	Ala	Pro	Ala	Ser	Ser	Ser	Ala	Ser	Leu
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Leu	Ala	Pro	Ala	Ser 1525		Gln	Thr	Leu	Thr 1530		Ser	Pro	Ala	Pro 1535	
Pro	Thr	Leu	Gly			Ala	Ala	Gln			Ala	Leu	Ala		
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Ser	Glv		Ala	Pro	T.e.1				Met	Va1	Ser			Pro	Va1
	1570		~~ a	-10		1575					1580				
Ser			G) 11	Pro				Thr	Leu	Ara	Ser	Glv	Pro	Pro	Ser

158	=				1590	,				1595	5				1600
		Ser	Thr	Δla			Phe	Glv	Glv	Pro		Pro	Arg	Arq	Gln
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Pro	Pro	Pro	Pro			Ser	Pro	Phe		Leu	Asp	Ser	Leu	Glu	Glu
110	110	110	1620		~-9	501		1629					1630		
Lve	Δτα	Lare			Δνα	Ser	Glu			Glu	Ara	Ile			Leu
בעם	Arg	1635		GIII	AL 9	Jer	1640					1649			
c	~1			G1	23.	T 011			17a 1	Tyr	Glv			Val	Leu
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_		Cys	1111	Leu	167		FIU	Val	AIG	1679		110	U		1680
166		~1	D	C			Th~	Dhe	Т~~	Thr		Thr	Glu	Δla	
ser	PIO	GLY	PIO	168		PIO	TIIL	FIIC	1690		- y -	****	014	169	
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T1.	T1.	G1			т1 -	Dho	Va I			Pro	17a l	Glu			Pro
116	116	171		PILE	TTE	FIIC	1720		-10	110	• • •	1725			
D	C			210	Crea	ui a			Bro	Trp	Lau			Δνα	Gln
PIO			птэ	Ald	cys	173		PIO	PIO	ııp	1740		110		411
	1730		~1 -	~1	~1 m			c - ~	Cl.	Leu			Ara	Δla	Ara
		Pne	GIII	GIU	175		мта	261	GIU	175		110	m. g	ALU	1760
174		*** _	7	T1.			*	Mot	7	Thr		Dha	Dro	Asn	
Pro	Leu	HIS	Arg	176		Cys	ASII	MEL	1770		GIII	FIIC	110	177	
•	•	- 1-	~1			~	~1	T		Gln	Thr	T.eu	בומ		_
Arg	Leu	ire			ASP	cys	GIY	178		GIII	1111	Deu	179		200
T	3	~1 -	1780		77-	C1	C1.,		_	Val	T.eu	Tle			Gln
ьец	Arg	179		ьys	AId	GIU	180		Arg	Val	пса	180			· · · ·
14-5-	mb			T 0	7	1701			Gln.	Phe	T.211			His	Glv
met			met	ьеи	ASP	181		Giu	GIII	FIIC	1820		-7-		O.J
***	1810		T	3	T 011			c~~	Th~	Arg			Gln	Δτα	Gln
		IYE	ren	Arg	183		GIY	Ser	1111	183		GIL	UIII	~~ 3	1840
182		Mos	~1	λ ~~ ~			Nla	λen	Lare	Arg		Phe	Cvs	Phe	
Ala	Leu	Met	GIU	184		ASII	AIA	vəħ	1850		110	1 110	Cyo	185	
	C	m-	7			C111	17-1	Clv		Asn	1.211	Thr	Glv		
ьеп	Ser	1111	1866		GLY	GLY	Val	186		no	Deu		1870		
mh	1707	17-1			7.00	Ca*) en			Pro	Thr	Met			Gln
int	ATT	187		IYL	ASP	261	188		ASII	110	1111	188			
.1-	~1 -			C	ui.c	7~~			Gln	Thr	Δrσ			His	Ile
Ala	189		Arg	Cys	nis	189		Gry	G111	1111	1900))			
T			Tla	Ca*	Gl.v			Wal.	Glu	Glu		_	T.e.u	Lvs	Lvs
190		neu	116	261	101	u Tra	1111	Val	GIU	1916			200	_,_	1920
										Ala					
Ala	ASI	GIN	ьys			Leu	GIY	ASP	1930		116	GIU	Gry	193	
Db -	m\	mb	21-	192		T	C1 =	C1 n		Ile) ra	Glu	T.e.11		
Pne	Inr	Thr	1940		Pne	гåа	GIII	194		116	Arg	GIU	1950		ADP
		.			D	C	C			17-1	Bro	cor			Glu
met	PTO			GIU	PIO	ser			Ser	Val	PIO	1965		110	GIG
		195					1960		a1_	mb	77.5			c1.	Cln
GIu			GIU	Inr	vaı			гÀ2	GIII	Thr	1980		שבע	GIU	3111
	1970		_			1979		- 21		+1 -			21-	mb~	C1-
		Cys	Arg	Ala			GIU	GIU	ASP	Ile		WIG	wra	1111	
1985			~ `	~ .	1990		~ .	. -	n1-	1999		A	C1	n	2000
Ala	Lys	Ala	Glu			Ala	GIu	Leu		Glu	rne	ASI	GIU		
- *		_		2009					2010		.	D	01	2019	
Glv	Phe	Pro	Ala	GIY	GIu	GTA	GIU	GIU	AIA	GIy	Arg	PIO	GTA	ATA	GIU

			2020	,				202	5				203	0	
λen	Glu	Glu			Ara	λla	Glu			Ile	Δla	Δla			Glu
АЗР	GIU	203		361	719	AIG	2040		GIU	110	7,24	204			
Gln	T.en			Tle	Glui	Ara		-	Met	Lys	Phe			Ala	Ser
U	2050					205				-,-	206				
Len			Val	Ser	Ara			Leu	Lvs	Gln			Glu	Gln	Val
206					2070				_,_	207					2080
		Δla	Ara	Lvs		_	Asp	Gln	Ala	Lys		Glu	Val	Phe	Arg
			••••	208					209					209	
Leu	Pro	Gln	Glu			Glu	Glv	Pro		Ala	Glv	Asp	Glu	Ser	Ser
			2100				2	210		•	•	-	211		
Cvs	Glv	Thr	Glv	Glv	Glv	Thr	His	Ara	Arq	Ser	Lys	Lys	Ala	Lys	Ala
-,-	2	2115	_	2			2120	_	_		•	212		_	
Pro	Glu			Gly	Thr	Arg	Val	Ser	Glu	Arg	Leu	Arg	Gly	Ala	Arg
	2130			•		213!				_	2140		_		
Ala	Glu	Thr	Gln	Gly	Ala	Asn	His	Thr	Pro	Val	Ile	Ser	Ala	His	Gln
2145				-	2150					215					2160
Thr	Arg	Ser	Thr	Thr	Thr	Pro	Pro	Arg	Cys	Ser	Pro	Ala	Arg	Glu	Arg
				216				_	217					217	
Val	Pro	Arg	Pro	Ala	Pro	Arg	Pro	Arg	Pro	Thr	Pro	Ala	Ser	Ala	Pro
			2180)				218	5				219	0	
Ala	Ala	Ile	Pro	Ala	Leu	Val	Pro	Val	Pro	Val	Ser	Ala	Pro	Val	Pro
		2199					2200					220			
Ile	Ser	Ala	Pro	Asn	Pro	Ile	Thr	Ile	Leu	Pro	Val	His	Ile	Leu	Pro
	2210					221					2220	-			
Ser	Pro	Pro	Pro	Pro	Ser	Gln	Ile	Pro	Pro	Cys	Ser	Ser	Pro	Ala	
222					2230					223					2240
~ `															
Thr	Pro	Pro	Pro			Thr	Pro	Pro		Ala	His	Thr	Pro		
				224	5				225	0				225	5
			Cys	2249 Leu	5			Ser	225 Ser				Leu	2259 Gly	5
Ala	Gln	Thr	Cys 2260	2249 Leu)	Vál	Thr	Pro	Ser 226	2250 Ser) Pro	Leu	Leu	Leu 2270	2259 Gly O	Pro
Ala	Gln	Thr Val	Cys 2260 Pro	2249 Leu)	Vál	Thr	Pro Ser	Ser 2269 Val	2250 Ser	0	Leu	Leu Pro	Leu 2270 Leu	2259 Gly O	Pro
Ala Pro	Gln Ser	Thr Val 2275	Cys 2260 Pro	2249 Leu) Ile	Vál Ser	Thr Ala	Pro Ser 2280	Ser 2269 Val	2250 Ser 5 Thr	Pro Asn	Leu Leu	Leu Pro 2285	Leu 2270 Leu	2259 Gly O Gly	Pro Leu
Ala Pro	Gln Ser Pro	Thr Val 2275 Glu	Cys 2260 Pro	2249 Leu) Ile	Vál Ser	Thr Ala Cys	Pro Ser 2280 Ala	Ser 2269 Val	2250 Ser 5 Thr) Pro	Leu Leu Ala	Leu Pro 2285 Ser	Leu 2270 Leu	2259 Gly O Gly	Pro Leu
Ala Pro Arg	Gln Ser Pro 2290	Thr Val 2279 Glu	Cys 2260 Pro Ala	2245 Leu) Ile Glu	Vál Ser Leu	Thr Ala Cys 2295	Pro Ser 2280 Ala	Ser 226! Val) Gln	2250 Ser 5 Thr Ala	Pro Asn Leu	Leu Leu Ala 2300	Leu Pro 2289 Ser	Leu 2270 Leu Fro	2259 Gly Gly Glu	Pro Leu Ser
Ala Pro Arg Leu	Gln Ser Pro 2290 Glu	Thr Val 2279 Glu	Cys 2260 Pro Ala	2245 Leu) Ile Glu	Vál Ser Leu Val	Thr Ala Cys 2299 Ala	Pro Ser 2280 Ala	Ser 226! Val) Gln	2250 Ser 5 Thr Ala	Pro Asn Leu Thr	Leu Leu Ala 2300 Ser	Leu Pro 2289 Ser	Leu 2270 Leu Fro	2259 Gly Gly Glu	Pro Leu Ser Leu
Ala Pro Arg Leu 2309	Gln Ser Pro 2290 Glu	Thr Val 2275 Glu) Leu	Cys 2260 Pro Ala Ala	2245 Leu) Ile Glu Ser	Val Leu Val 2310	Thr Ala Cys 2295 Ala	Pro Ser 2280 Ala Ser	Ser 2269 Val O Gln Ser	2250 Ser 5 Thr Ala Glu	Pro Asn Leu Thr 231	Leu Leu Ala 2300 Ser	Pro 2285 Ser Ser	Leu 2270 Leu Pro Leu	Gly Gly Gly Gly Glu Ser	Pro Leu Ser Leu 2320
Ala Pro Arg Leu 2309	Gln Ser Pro 2290 Glu	Thr Val 2275 Glu) Leu	Cys 2260 Pro Ala Ala	2249 Leu Ile Glu Ser Asp	Val Ser Leu Val 2310 Leu	Thr Ala Cys 2295 Ala	Pro Ser 2280 Ala Ser	Ser 2269 Val O Gln Ser	2250 Ser 5 Thr Ala Glu Ala	Pro Asn Leu Thr 2315	Leu Leu Ala 2300 Ser	Pro 2285 Ser Ser	Leu 2270 Leu Pro Leu	Gly Gly Gly Gly Glu Ser	Pro Leu Ser Leu 2320 Val
Ala Pro Arg Leu 2305 Val	Gln Ser Pro 2290 Glu Pro	Thr Val 2275 Glu) Leu Pro	Cys 2260 Pro Ala Ala Lys	Leu Ile Glu Ser Asp 2325	Val Ser Leu Val 2310 Leu	Thr Ala Cys 2295 Ala Leu	Ser 2280 Ala Ser Pro	Ser 2269 Val Gln Ser Val	2250 Ser 5 Thr Ala Glu Ala 2330	Pro Asn Leu Thr 2315 Val	Leu Leu Ala 2300 Ser Glu	Pro 2285 Ser Ser Ile	Leu 2270 Leu Pro Leu Leu	Gly Glu Ser Pro 2335	Pro Leu Ser Leu 2320 Val
Ala Pro Arg Leu 2305 Val	Gln Ser Pro 2290 Glu Pro	Thr Val 2279 Glu Leu Pro	Cys 2260 Pro Ala Ala Lys	Leu Ile Glu Ser Asp 2325 Leu	Val Ser Leu Val 2310 Leu	Thr Ala Cys 2295 Ala Leu Leu	Pro Ser 2280 Ala Ser Pro	Ser 2269 Val Gln Ser Val	2250 Ser 5 Thr Ala Glu Ala 2330	Pro Asn Leu Thr 2315 Val	Leu Leu Ala 2300 Ser Glu Pro	Pro 2285 Ser Ser Ile	Leu 2270 Leu Pro Leu Leu	Gly Gly Glu Ser Pro 2335 Thr	Pro Leu Ser Leu 2320 Val
Ala Pro Arg Leu 2305 Val	Gln Ser Pro 2290 Glu Pro Glu	Thr Val 2275 Glu Leu Pro Lys	Cys 2260 Pro Ala Ala Lys Asn 2340	Leu Ile Glu Ser Asp 2325 Leu	Val Ser Leu Val 2310 Leu Ser	Thr Ala Cys 2295 Ala Leu Leu	Pro Ser 2280 Ala Ser Pro	Ser 2269 Val Gln Ser Val Pro 2349	2250 Ser Thr Ala Glu Ala 2330 Ser	Pro Asn Leu Thr 2315 Val	Leu Leu Ala 2300 Ser Glu Pro	Pro 2289 Ser Ser Ile	Leu 2270 Leu Pro Leu Leu Leu 2350	Gly Glu Ser Pro 2335 Thr	Pro Leu Ser Leu 2320 Val
Ala Pro Arg Leu 2305 Val	Gln Ser Pro 2290 Glu Pro Glu	Thr Val 2279 Glu Leu Pro Lys	Cys 2260 Pro Ala Ala Lys Asn 2340 Ser	Leu Ile Glu Ser Asp 2325 Leu	Val Ser Leu Val 2310 Leu Ser	Thr Ala Cys 2295 Ala Leu Leu	Pro Ser 2280 Ala Ser Pro	Ser 2269 Val Gln Ser Val Pro 2349 Gln	2250 Ser Thr Ala Glu Ala 2330 Ser	Pro Asn Leu Thr 2315 Val	Leu Leu Ala 2300 Ser Glu Pro	Pro 2289 Ser Ser Ile	Leu 2270 Leu Fro Leu Leu Leu 2350	Gly Glu Ser Pro 2335 Thr	Pro Leu Ser Leu 2320 Val
Ala Pro Arg Leu 2309 Val Ser	Gln Ser Pro 2290 Glu Pro Glu Ala	Thr Val 2279 Glu Leu Pro Lys Gly 2359	Cys 2260 Pro Ala Ala Lys Asn 2340 Ser	Ile Glu Ser Asp 2325 Leu Ile	Val Ser Leu Val 2310 Leu Ser	Thr Ala Cys 2295 Ala Leu Leu Asn	Pro Ser 2280 Ala Ser Pro Thr Gly 2360	Ser 2269 Val Gln Ser Val Pro 2349 Gln	2250 Ser Thr Ala Glu Ala 2330 Ser Glu	Pro Asn Leu Thr 2319 Val Ala Gln	Leu Ala 2300 Ser Glu Pro Glu	Pro 2285 Ser Ser Ile Ser Ala 2365	Leu 2270 Leu Pro Leu Leu Leu 2350 Pro	Gly Glu Ser Pro 2335 Thr	Pro Leu Ser Leu 2320 Val Leu Ser
Ala Pro Arg Leu 2305 Val Ser Glu Ala	Gln Ser Pro 2290 Glu Pro Glu Ala Glu 2370	Thr Val 2275 Glu Leu Pro Lys Gly 2355 Gly	Cys 2260 Pro Ala Ala Lys Asn 2340 Ser	Ile Glu Ser Asp 2325 Leu Ile Thr	Val Ser Leu Val 2310 Leu Ser Pro	Thr Ala Cys 2295 Ala Leu Leu Asn Thr 2375	Pro Ser 2280 Ala Ser Pro Thr Gly 2360 Val	Ser 2269 Val Gln Ser Val Pro 2349 Gln	2250 Ser Thr Ala Glu Ala 2330 Ser Glu Pro	Pro Asn Leu Thr 2315 Val Ala Gln Glu	Leu Leu Ala 2300 Ser Glu Pro Glu Gly 2380	Pro 2285 Ser Ser Ile Ser Ala 2365 Glu	Leu 2270 Leu Pro Leu Leu 2350 Pro	Gly Glu Ser Pro 2335 Thr Asp	Pro Leu Ser Leu 2320 Val Leu Ser
Ala Pro Arg Leu 2305 Val Ser Glu Ala	Gln Ser Pro 2290 Glu Pro Glu Ala Glu 2370	Thr Val 2275 Glu Leu Pro Lys Gly 2355 Gly	Cys 2260 Pro Ala Ala Lys Asn 2340 Ser	Ile Glu Ser Asp 2325 Leu Ile Thr	Val Ser Leu Val 2310 Leu Ser Pro	Thr Ala Cys 2295 Ala Leu Leu Asn Thr 2375	Pro Ser 2280 Ala Ser Pro Thr Gly 2360 Val	Ser 2269 Val Gln Ser Val Pro 2349 Gln	2250 Ser Thr Ala Glu Ala 2330 Ser Glu Pro	Pro Asn Leu Thr 2319 Val Ala Gln	Leu Leu Ala 2300 Ser Glu Pro Glu Gly 2380	Pro 2285 Ser Ser Ile Ser Ala 2365 Glu	Leu 2270 Leu Pro Leu Leu 2350 Pro	Gly Glu Ser Pro 2335 Thr Asp	Pro Leu Ser Leu 2320 Val Leu Ser
Ala Pro Arg Leu 2305 Val Ser Glu Ala Leu 2385	Gln Ser Pro 2290 Glu Pro Glu Ala Glu 2370 Cys	Val 2275 Glu Leu Pro Lys Gly 2355 Gly	Cys 2260 Pro Ala Ala Lys Asn 2340 Ser Thr	Leu Ile Glu Ser Asp 2325 Leu Ile Thr	Val Ser Val 2310 Leu Ser Pro Leu Ser 2390	Thr Ala Cys 2295 Ala Leu Leu Asn Thr 2375 Asn	Pro Ser 2280 Ala Ser Pro Thr Gly 2360 Val	Ser 226: Val Gln Ser Val Pro 234: Gln Leu Leu	2250 Ser Thr Ala Glu Ala 2330 Ser Glu Pro	Pro Asn Leu Thr 2315 Val Clu Glu Leu 2395	Leu Leu Ala 2300 Ser Glu Pro Glu Gly 2380 Pro	Pro 2289 Ser Ser Ile Ser Ala 2369 Glu Pro	Leu 2270 Leu Pro Leu Leu 2350 Pro Glu Ser	Gly Gly Glu Ser Pro 2335 Thr Asp Leu Ala	Pro Leu Ser Leu 2320 Val Leu Ser Pro Ala 2400
Ala Pro Arg Leu 2305 Val Ser Glu Ala Leu 2385	Gln Ser Pro 2290 Glu Pro Glu Ala Glu 2370 Cys	Val 2275 Glu Leu Pro Lys Gly 2355 Gly	Cys 2260 Pro Ala Ala Lys Asn 2340 Ser Thr	Leu Ile Glu Ser Asp 2325 Leu Ile Thr	Val Ser Val 2310 Leu Ser Pro Leu Ser 2390	Thr Ala Cys 2295 Ala Leu Leu Asn Thr 2375 Asn	Pro Ser 2280 Ala Ser Pro Thr Gly 2360 Val	Ser 226: Val Gln Ser Val Pro 234: Gln Leu Leu	2250 Ser Thr Ala Glu Ala 2330 Ser Glu Pro	Pro Asn Leu Thr 2315 Val Cln Glu Leu	Leu Leu Ala 2300 Ser Glu Pro Glu Gly 2380 Pro	Pro 2289 Ser Ser Ile Ser Ala 2369 Glu Pro	Leu 2270 Leu Pro Leu Leu 2350 Pro Glu Ser	Gly Gly Glu Ser Pro 2335 Thr Asp Leu Ala Ser	Pro Leu Ser Leu 2320 Val Leu Ser Pro Ala 2400 Glu
Ala Pro Arg Leu 2305 Val Ser Glu Ala Leu 2385 Ser	Gln Ser Pro 2290 Glu Pro Glu Ala Glu 2370 Cys Asp	Val 2275 Glu Leu Pro Lys Gly 2355 Gly Val	Cys 2260 Pro Ala Ala Lys Asn 2340 Ser Thr	Leu Leu 2249 Leu 1le Glu Ser Asp 2329 Leu Ile Thr Glu Leu 2409	Val Ser Leu Val 2310 Leu Ser Pro Leu Ser 2390 Gln	Thr Ala Cys 2295 Ala Leu Leu Asn Thr 2375 Asn	Pro Ser 2280 Ala Ser Pro Thr Gly 2360 Val Gly Pro	Ser 226: Val Gln Ser Val Pro 234: Gln Leu Leu	2250 Ser 5 Thr Ala Glu Ala 2330 Ser 5 Glu Pro Glu Glu 2410	Pro Asn Leu Thr 2315 Val Ala Gln Glu Leu 2395 Ala	Leu Leu Ala 2300 Ser Glu Pro Glu Gly 2380 Pro Asp	Pro 2289 Ser Ile Ser Ala 2369 Glu Pro Arg	Leu 2270 Leu Pro Leu Leu 2350 Pro Glu Ser	Gly Gly Glu Ser Pro 2335 Thr Asp Leu Ala Ser 2415	Pro Leu Ser Leu 2320 Val Leu Ser Pro Ala 2400 Glu
Ala Pro Arg Leu 2305 Val Ser Glu Ala Leu 2385 Ser	Gln Ser Pro 2290 Glu Pro Glu Ala Glu 2370 Cys Asp	Val 2275 Glu Leu Pro Lys Gly 2355 Gly Val	Cys 2260 Pro Ala Ala Lys Asn 2340 Ser Thr	Leu Leu 2249 Leu Leu 2409	Val Ser Leu Val 2310 Leu Ser Pro Leu Ser 2390 Gln	Thr Ala Cys 2295 Ala Leu Leu Asn Thr 2375 Asn	Pro Ser 2280 Ala Ser Pro Thr Gly 2360 Val Gly Pro	Ser 226: Val Gln Ser Val Pro 234: Gln Leu Leu	2250 Ser 5 Thr Ala Glu Ala 2330 Ser 5 Glu Pro Glu Glu 2410	Pro Asn Leu Thr 2315 Val Ala Gln Glu Leu 2395 Ala	Leu Leu Ala 2300 Ser Glu Pro Glu Gly 2380 Pro Asp	Pro 2289 Ser Ile Ser Ala 2369 Glu Pro Arg	Leu 2270 Leu Pro Leu Leu 2350 Pro Glu Ser	Gly Gly Glu Ser Pro 2335 Thr Asp Leu Ala Ser 2415	Pro Leu Ser Leu 2320 Val Leu Ser Pro Ala 2400 Glu
Ala Pro Arg Leu 2305 Val Ser Glu Ala Leu 2385 Ser Glu	Gln Ser Pro 2290 Glu Pro Glu Ala Glu 2370 Cys Asp Leu	Val 2275 Glu Leu Pro Lys Gly 2355 Gly Val Glu	Cys 2260 Pro Ala Ala Lys Asn 2340 Ser Thr Ser Pro	Leu Leu 2405 Ala	Val Ser Leu Val 2310 Leu Ser Pro Leu Ser 2390 Gln Lys	Thr Ala Cys 2295 Ala Leu Leu Asn Thr 2375 Asn Glu Thr	Pro Ser 2280 Ala Ser Pro Thr Gly 2360 Val Gly Pro	Ser 2269 Val Gln Ser Val Pro 2345 Gln Leu Leu Thr 2425	2250 Ser Thr Ala Glu Ala 2330 Ser Glu Pro Glu 2410 Ser	Pro Asn Leu Thr 2315 Val Ala Gln Glu Leu 2395 Ala Ser	Leu Leu Ala 2300 Ser Glu Pro Glu Gly 2380 Pro Asp	Leu Pro 2289 Ser Ser Ile Ser Ala 2365 Glu Pro Arg Glu	Leu 2270 Leu Pro Leu Leu 2350 Pro Glu Ser Thr Lys 2430	Gly Gly Glu Ser Pro 2335 Thr Asp Leu Ala Ser 2415	Pro Leu Ser Leu 2320 Val Leu Ser Pro Ala 2400 Glu Gln
Ala Pro Arg Leu 2305 Val Ser Glu Ala Leu 2385 Ser Glu	Gln Ser Pro 2290 Glu Pro Glu Ala Glu 2370 Cys Asp Leu	Val 2275 Glu Leu Pro Lys Gly 2355 Gly Val Glu	Cys 2260 Pro Ala Ala Lys Asn 2340 Ser Thr Ser Pro	Leu Leu 2405 Ala	Val Ser Leu Val 2310 Leu Ser Pro Leu Ser 2390 Gln Lys	Thr Ala Cys 2295 Ala Leu Leu Asn Thr 2375 Asn Glu Thr	Pro Ser 2280 Ala Ser Pro Thr Gly 2360 Val Gly Pro	Ser 2269 Val Gln Ser Val Pro 2345 Gln Leu Leu Thr 2425	2250 Ser Thr Ala Glu Ala 2330 Ser Glu Pro Glu 2410 Ser	Pro Asn Leu Thr 2315 Val Ala Gln Glu Leu 2395 Ala	Leu Leu Ala 2300 Ser Glu Pro Glu Gly 2380 Pro Asp	Pro 2285 Ser Ser Ile Ser Ala 2365 Glu Pro Arg Glu Ser	Leu 2270 Leu Pro Leu Leu 2350 Pro Glu Ser Thr Lys 2430 Ser	Gly Gly Glu Ser Pro 2335 Thr Asp Leu Ala Ser 2415	Pro Leu Ser Leu 2320 Val Leu Ser Pro Ala 2400 Glu Gln
Ala Pro Arg Leu 2305 Val Ser Glu Ala Leu 2385 Ser Glu Glu	Gln Ser Pro 2290 Glu Pro Glu Ala Glu 2370 Cys Asp Leu Leu	Thr Val 2275 Glu Leu Pro Lys Gly 2355 Gly Val Glu Thr Val 2435	Cys 2260 Pro Ala Ala Lys Asn 2340 Ser Thr Pro Glu 2420 Thr	Ile Glu Ser Asp 2325 Leu Ile Thr Glu Leu 2405 Ala	Val Ser Leu Val 2310 Leu Ser Pro Leu Ser 2390 Gln Lys	Thr Ala Cys 2295 Ala Leu Leu Asn Thr 2375 Asn Glu Thr	Pro Ser 2280 Ala Ser Pro Thr Gly 2360 Val Gly Pro Ala 2440	Ser 2269 Val Gln Ser Val Pro 2349 Gln Leu Leu Thr 2429 Ala	2250 Ser Thr Ala Glu Ala 2330 Ser Glu Pro Glu Glu 2410 Ser Pro	Pro Asn Leu Thr 2315 Val Ala Gln Glu Leu 2395 Ala Ser	Leu Leu Ala 2300 Ser Glu Pro Glu Gly 2380 Pro Asp	Leu Pro 2285 Ser Ser Ile Ser Ala 2365 Glu Pro Arg Glu Ser 2445	Leu 2270 Leu Pro Leu Leu 2350 Pro Glu Ser Thr Lys 2430 Ser	Gly Glu Ser Pro 2335 Thr Asp Leu Ala Ser 2415 Pro	Pro Leu Ser Leu 2320 Val Leu Ser Pro Ala 2400 Glu Gln Ala

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_,	245					245		a 1	01	~ 1	2460	-		D	Cl.
		Ala	Asp	Val			Arg	GIY	GIN			GIY	Arg	PIO	Gly
2469			_		247		_	_	_	2475			_		2480
Gln	Pro	Pro	Gly			Val	Leu	Arg			Pro	GIÀ	Arg		
				248					249					249	
Thr	Val	Val	Glu	Glu	Lys	Glu	Leu			Arg	Arg	Arg			Arg
			2500					250					2510		
Gly	Ala	Ala	Ser	Thr	Leu	Val	Pro	Gly	Val	Ser	Glu	Thr	Ser	Ala	Ser
		251					2520					2525			
Pro	Gly	Ser	Pro	Ser	Val	Arg	Ser	Met	Ser	Gly	Pro	Glu	Ser	Ser	Pro
	253	-				253					254				
Pro	Ile	Gly	Gly	Pro	Cys	Glu	Ala	Ala	Pro	Ser	Ser	Ser	Leu	Pro	Thr
2549	5				2556)				255	5				2560
Pro	Pro	Gln	Gln	Pro	Phe	Ile	Ala	Arg	Arg	His	Ile	Glu	Leu	Gly	Val
				256					2570					257	
Thr	Gly	Gly	Gly	Ser	Pro	Glu	Asn	Gly	Asp	Gly	Ala	Leu	Leu	Ala	Ile
	-	•	2580					258					2590		
Thr	Pro	Pro	Ala	Val	Lys	Arg	Arg	Arg	Gly	Arg	Pro	Pro	Lys	Lys	Asn
		259			-	_	2600	_	-	_		260		_	
Ara	Ser	Pro	Ala	Asp	Ala	Glv	Arg	Glv	Val	Asp	Glu	Ala	Pro	Ser	Ser
3	261					261				•	262				
Thr			Gly	Lvs	Thr	Asn	Glv	Ala	'Asp	Pro	Val	Pro	Glv	Pro	Glu
2629		-,-	1	-1-	2630		,			2635			•		2640
		Tle	Val	Δla			Val	T. e 11	Glu			Leu	Ile	Pro	Glv
1111	200		,,,	264					2650					265	
Pro	Gla	Dro	Leu			Gln	Pro	Val			Pro	Asn	Pro		
110	GIII	110	2660		110	01		266!		•• 5			2670		
Ser	Pro	Val	Glu	LVS	Ara	Ara	Ara	Glv	Ara	Pro	Pro	Lvs	Ala	Ara	Asp
Ser	Pro			Lys	Arg	Arg			Arg	Pro	Pro			Arg	Asp
		267	5				2680)				2689	5		
	Pro	267 Ile				Ile	2680 Ser)			Asp	2689 Gly	5		
Leu	Pro 269	267: Ile	5 Pro	Gly	Thr	Ile 269	2680 Ser) Ser	Ala	Gly	Asp 270	2689 Gly	Asn	Ser	Glu
Leu Ser	Pro 2690 Arg	267: Ile	5	Gly	Thr Pro	Ile 2699 Pro	2680 Ser) Ser	Ala	Gly Pro	Asp 270 Leu	2689 Gly	Asn	Ser	Glu Pro
Leu Ser 2709	Pro 2690 Arg	267 Ile) Thr	Pro Gln	Gly Pro	Thr Pro 2710	Ile 2699 Pro	2680 Ser His	Ser Pro	Ala Ser	Gly Pro 2715	Asp 270 Leu	2689 Gly Thr	Asn Pro	Ser Leu	Glu Pro 2720
Leu Ser 2709	Pro 2690 Arg	267 Ile) Thr	5 Pro	Gly Pro Cys	Thr Pro 2710 Pro	Ile 2699 Pro	2680 Ser His	Ser Pro	Ala Ser Val	Gly Pro 2715 Ala	Asp 270 Leu	2689 Gly Thr	Asn Pro	Ser Leu Thr	Glu Pro 2720 Thr
Leu Ser 2709 Pro	Pro 2690 Arg Leu	2679 Ile Thr Leu	Pro Gln Val	Gly Pro Cys 2729	Thr Pro 2710 Pro	Ile 2699 Pro Thr	2680 Ser His	Ser Pro Thr	Ala Ser Val 2730	Gly Pro 2715 Ala	Asp 270 Leu Asn	2689 Gly Thr	Asn Pro Val	Ser Leu Thr 273	Glu Pro 2720 Thr
Leu Ser 2709 Pro	Pro 2690 Arg Leu	2679 Ile Thr Leu	Pro Gln Val Ser	Gly Pro Cys 2729 Thr	Thr Pro 2710 Pro	Ile 2699 Pro Thr	2680 Ser His	Ser Pro Thr	Ala Ser Val 2730 Arg	Gly Pro 2715 Ala	Asp 270 Leu Asn	2689 Gly Thr	Asn Pro Val Arg	Ser Leu Thr 2733 Pro	Glu Pro 2720 Thr
Leu Ser 2705 Pro	Pro 2690 Arg Leu	2679 Ile Thr Leu	Pro Gln Val Ser 2740	Gly Pro Cys 2729 Thr	Thr Pro 2710 Pro Ser	Ile 2699 Pro Thr	2680 Ser His Ala	Ser Pro Thr Lys 274	Ala Ser Val 2730 Arg	Gly Pro 2715 Ala Lys	Asp 2700 Leu Asn Arg	Gly Thr Thr	Asn Pro Val Arg 2750	Ser Leu Thr 2733 Pro	Glu Pro 2720 Thr Pro
Leu Ser 2705 Pro	Pro 2690 Arg Leu	2679 Ile Thr Leu Ile	Pro Gln Val Ser 2740	Gly Pro Cys 2729 Thr	Thr Pro 2710 Pro Ser	Ile 2699 Pro Thr	2680 Ser His Ala Pro	Ser Pro Thr Lys 2749 Ser	Ala Ser Val 2730 Arg	Gly Pro 2715 Ala Lys	Asp 2700 Leu Asn Arg	2689 Gly Thr Thr Gly	Asn Pro Val Arg 2750 Leu	Ser Leu Thr 2733 Pro	Glu Pro 2720 Thr Pro
Leu Ser 2705 Pro Val Lys	Pro 2690 Arg Leu Thr	2679 Ile Thr Leu Ile Pro 2759	Pro Gln Val Ser 2740 Pro	Gly Pro Cys 2729 Thr	Thr Pro 2710 Pro Ser	Ile 2699 Pro Thr Pro	2680 Ser His Ala Pro Pro 2760	Ser Pro Thr Lys 2745 Ser	Ala Ser Val 2730 Arg Gln	Pro 2715 Ala Lys Leu	Asp 2700 Leu Asn Arg	Thr Gly Val	Asn Pro Val Arg 2750 Leu	Leu Thr 2735 Pro	Glu Pro 2720 Thr Pro Arg
Leu Ser 2705 Pro Val Lys	Pro 2690 Arg Leu Thr Asn	2679 Ile Thr Leu Ile Pro 2759 Thr	Pro Gln Val Ser 2740	Gly Pro Cys 2729 Thr	Thr Pro 2710 Pro Ser	Ile 2699 Pro Thr Pro Arg	2680 Ser His Ala Pro Pro 2760 Ser	Ser Pro Thr Lys 2745 Ser	Ala Ser Val 2730 Arg Gln	Pro 2715 Ala Lys Leu	Asp 2700 Leu Asn Arg Pro	2689 Gly Thr Thr Gly Val 2769 Arg	Asn Pro Val Arg 2750 Leu	Leu Thr 2735 Pro	Glu Pro 2720 Thr Pro Arg
Leu Ser 2705 Pro Val Lys Asp	Pro 2690 Arg Leu Thr Asn Ser 2770	2679 Ile Thr Leu Ile Pro 2759 Thr	Pro Gln Val Ser 2740 Pro Ser	Gly Pro Cys 272! Thr Ser Val	Thr Pro 2710 Pro Ser Pro	Ile 2699 Pro Thr Pro Arg Glu 2779	2680 Ser His Ala Pro Pro 2760 Ser	Ser Pro Thr Lys 2749 Ser Ocys	Ala Ser Val 2730 Arg Gln Gly	Gly Pro 2715 Ala Lys Leu Leu	Asp 2700 Leu Asn Arg Pro Gly 2780	2689 Gly Thr Thr Gly Val 2769 Arg	Asn Pro Val Arg 2750 Leu Arg	Leu Thr 2735 Pro Asp	Glu Pro 2720 Thr Fro Arg Gln
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Pro Leu Gln 545 Val Ser Asp Val Pro	His Leu 530 His Asn Gln Ala Ser 610	Leu 515 Pro Phe Glu Leu Gly 595 Thr	500 Lys Pro Val Val Ser 580 Glu Lys	485 His Ser Ser Met Arg 565 Asp Ala	Pro Pro Val 550 Ala Ser Glu Arg Asn	Ser Ser 535 Glu Leu Gly Ala Ser 615	Gly Ala 520 Gly Val Pro Gln Ser 600 Ser	Pro 505 Glu His His Gln Thr 585 Ala	A1a Pro Arg Thr 570 Leu Pro Glu	Pro Thr Asp Pro 555 Arg Ser Gly Leu Leu	Arg Val Gln 540 Asp Thr Glu Arg Pro 620	Val Ala 525 Thr Ser Ala Asp Gly 605 Arg	Gln 510 Gly Glu Ser Ser 590 Arg	495 Ser Gly Thr Pro Thr 575 Gly Gln Glu	Pro Cys Asn Asp 560 Leu Val
Pro Leu Gln 545 Val Ser Asp Val Pro 625	His Leu 530 His Asn Gln Ala Ser 610 Thr	Leu 515 Pro Phe Glu Leu Gly 595 Thr	Fro Val Val Ser 580 Glu Lys	485 His Ser Ser Met Arg 565 Asp Ala Ser	Pro Pro Val 550 Ala Ser Glu Arg Asn 630	Ser Ser 535 Glu Leu Gly Ala Ser 615 Lys	Gly Ala 520 Gly Val Pro Gln Ser 600 Ser	Pro 505 Glu His His Gln Thr 585 Ala Lys	A1a Pro Arg Thr 570 Leu Pro Glu Gly	Pro Thr Asp Pro 555 Arg Ser Gly Leu Leu 635	Arg Val Gln 540 Asp Thr Glu Arg Pro 620 Leu	Val Ala 525 Thr Ser Ala Asp Gly 605 Arg Glu	Gln 510 Gly Glu Ser Ser 590 Arg Asn	495 Ser Gly Thr Pro Thr 575 Gly Gln Glu Thr	Pro Cys Asn Asp 560 Leu Val Ser Arg
Pro Leu Gln 545 Val Ser Asp Val Pro 625	His Leu 530 His Asn Gln Ala Ser 610 Thr	Leu 515 Pro Phe Glu Leu Gly 595 Thr	Fro Val Val Ser 580 Glu Lys	485 His Ser Ser Met Arg 565 Asp Ala Ser Ala	Pro Pro Val 550 Ala Ser Glu Arg Asn 630	Ser Ser 535 Glu Leu Gly Ala Ser 615 Lys	Gly Ala 520 Gly Val Pro Gln Ser 600 Ser	Pro 505 Glu His His Gln Thr 585 Ala Lys	A1a Pro Arg Thr 570 Leu Pro Glu Gly Ala	Pro Thr Asp Pro 555 Arg Ser Gly Leu Leu 635	Arg Val Gln 540 Asp Thr Glu Arg Pro 620 Leu	Val Ala 525 Thr Ser Ala Asp Gly 605 Arg Glu	Gln 510 Gly Glu Ser Ser 590 Arg Asn	495 Ser Gly Thr Pro Thr 575 Gly Gln Glu Thr	Pro Cys Asn Asp 560 Leu Val Ser Arg
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Pro Leu Gln 545 Val Ser Asp Val Pro 625 Thr	His Leu 530 His Asn Gln Ala Ser 610 Thr	Leu 515 Pro Phe Glu Leu Gly 595 Thr Asp	Fro Val Val Ser 580 Glu Lys Gly	485 His Ser Ser Met Arg 565 Asp Ala Ser Ala Val 645	Pro Pro Val 550 Ala Ser Glu Arg Asn 630	Ser Ser 535 Glu Leu Gly Ala Ser 615 Lys	Gly Ala 520 Gly Val Pro Gln Ser 600 ser Pro	Pro 505 Glu His His Gln Thr 585 Ala Lys Pro Ala	A1a Pro Arg Thr 570 Leu Pro Glu Gly Ala 650	Pro Thr Asp Pro 555 Arg Ser Gly Leu 635 Thr	Arg Val Gln 540 Asp Thr Glu Arg Pro 620 Leu Leu	Val Ala 525 Thr Ser Ala Asp Gly 605 Arg Glu Gly	Gln 510 Gly Gly Glu Ser 590 Arg Asn Pro Ile Val	495 Ser Gly Thr Pro Thr 575 Gly Gln Glu Thr Ala 655	Pro Cys Asn Asp 560 Leu Val Ser Arg Ser 640 Ile
Pro Leu Gln 545 Val Ser Asp Val Pro 625 Thr	His Leu 530 His Asn Gln Ala Ser 610 Thr Leu Gly	Leu 515 Pro Phe Glu Leu Gly 595 Thr Asp Val	Pro Val Val Ser 580 Glu Lys Gly Arg Ala 660	485 His Ser Ser Met Arg 565 Asp Ala Ser Ala Val 645 Asn	Pro Pro Val 550 Ala Ser Glu Arg Asn 630 Lys	Ser Ser 535 Glu Leu Gly Ala Ser 615 Lys Lys	Gly Ala 520 Gly Val Pro Gln Ser 600 Ser Pro Ser	Pro 505 Glu His His Gln Thr 585 Ala Lys Pro Ala Pro 665	A1a Pro Arg Thr 570 Leu Pro Glu Gly Ala 650 Leu	Pro Thr Asp Pro 555 Arg Ser Gly Leu 635 Thr	Arg Val Gln 540 Asp Thr Glu Arg Pro 620 Leu Leu Arg	Val Ala 525 Thr Ser Ala Asp Gly 605 Arg Glu Gly Ile	Gln 510 Gly Gly Glu Ser 590 Arg Asn Pro Ile Val 670	495 Ser Gly Thr Pro Thr 575 Gly Gln Glu Thr Ala 655 Thr	Pro Cys Asn Asp 560 Leu Val Ser Arg Ser 640 Ile
Pro Leu Gln 545 Val Ser Asp Val Pro 625 Thr	His Leu 530 His Asn Gln Ala Ser 610 Thr Leu Gly	Leu 515 Pro Phe Glu Leu Gly 595 Thr Asp Val	Pro Val Val Ser 580 Glu Lys Gly Arg Ala 660	485 His Ser Ser Met Arg 565 Asp Ala Ser Ala Val 645 Asn	Pro Pro Val 550 Ala Ser Glu Arg Asn 630 Lys	Ser Ser 535 Glu Leu Gly Ala Ser 615 Lys Lys	Gly Ala 520 Gly Val Pro Gln Ser 600 Ser Pro Ser	Pro 505 Glu His His Gln Thr 585 Ala Lys Pro Ala Pro 665	A1a Pro Arg Thr 570 Leu Pro Glu Gly Ala 650 Leu	Pro Thr Asp Pro 555 Arg Ser Gly Leu 635 Thr	Arg Val Gln 540 Asp Thr Glu Arg Pro 620 Leu Leu Arg	Val Ala 525 Thr Ser Ala Asp Gly 605 Arg Glu Gly Ile	Gln 510 Gly Gly Glu Ser 590 Arg Asn Pro Ile Val 670	495 Ser Gly Thr Pro Thr 575 Gly Gln Glu Thr Ala 655 Thr	Pro Cys Asn Asp 560 Leu Val Ser Arg Ser 640 Ile
Pro Leu Gln 545 Val Ser Asp Val Pro 625 Thr	His Leu 530 His Asn Gln Ala Ser 610 Thr Leu Gly	Leu 515 Pro Phe Glu Leu Gly 595 Thr Asp Val	Pro Val Val Ser 580 Glu Lys Gly Arg Ala 660	485 His Ser Ser Met Arg 565 Asp Ala Ser Ala Val 645 Asn	Pro Pro Val 550 Ala Ser Glu Arg Asn 630 Lys	Ser Ser 535 Glu Leu Gly Ala Ser 615 Lys Lys	Gly Ala 520 Gly Val Pro Gln Ser 600 Ser Pro Ser	Pro 505 Glu His His Gln Thr 585 Ala Lys Pro Ala Pro 665	A1a Pro Arg Thr 570 Leu Pro Glu Gly Ala 650 Leu	Pro Thr Asp Pro 555 Arg Ser Gly Leu 635 Thr	Arg Val Gln 540 Asp Thr Glu Arg Pro 620 Leu Leu Arg	Val Ala 525 Thr Ser Ala Asp Gly 605 Arg Glu Gly Ile	Gln 510 Gly Gly Glu Ser 590 Arg Asn Pro Ile Val 670	495 Ser Gly Thr Pro Thr 575 Gly Gln Glu Thr Ala 655 Thr	Pro Cys Asn Asp 560 Leu Val Ser Arg Ser 640 Ile
Pro Leu Gln 545 Val Ser Asp Val Pro 625 Thr Glu Gln	His Leu 530 His Asn Gln Ala Ser 610 Thr Leu Gly Arg	Leu 515 Pro Phe Glu Leu Gly 595 Thr Asp Val Gly 675	Pro Val Val Ser 580 Glu Lys Gly Arg Ala 660 Gly	485 His Ser Ser Met Arg 565 Asp Ala Ser Ala Val 645 Asn	Pro Pro Val 550 Ala Ser Glu Arg Asn 630 Lys Thr	Ile Ser Ser 535 Glu Leu Gly Ala Ser 615 Lys Lys Arg His	Gly Ala 520 Gly Val Pro Gln Ser 600 ser Pro Ser Gln Asn 680	Pro 505 Glu His His Gln Thr 585 Ala Lys Pro Ala Pro 665 Cys	A1a Pro Arg Thr 570 Leu Pro Glu Gly Ala 650 Leu Gly	Pro Thr Asp Pro 555 Arg Ser Gly Leu 635 Thr Pro Gln	Arg Val Gln 540 Asp Thr Glu Arg Pro 620 Leu Leu Arg	Val Ala 525 Thr Ser Ala Asp Gly 605 Arg Glu Gly Ile Lys 685	Gln 510 Gly Glu Ser Ser 590 Arg Asn Pro Ile Val 670 Val	495 Ser Gly Thr Pro Thr 575 Gly Glu Thr Ala 655 Thr	Pro Cys Asn Asp 560 Leu Val Ser Arg Ser 640 Ile

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690
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Glu Ala Ala Arg Ile Ile Ala Glu Ala Phe Lys Thr Lys Asp Arg Asp
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<213> Homo sapiens
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Ile Pro Ala Gly Gln Ser Val Ala Val Met Gly Pro Ser Gly Ser Gly
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25
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   Lys Thr Thr Leu Leu His Cys Leu Ser Gly Ile Leu Ser Pro Asp Ser
                             40
   Gly Ser Ile Glu Leu Ala Leu Pro Asp Arg Thr Val Asn Val Glu Asn
                         55
                                            60
  Leu Ser Asn Glu Gly Arg Ala Lys Leu Arg Arg Gln Ser Leu Gly Phe
                      70
                                         75
   Val Phe Gln Gln Gly Met Leu Val Pro Glu Leu Thr Ala Val Glu Asn
                                     90
   Thr Ala Leu Pro Leu Met Leu Asn Gly Val Ser Gln Thr Asp Ala Val
                                                    110
              100
                                 105
   Arg Tyr Ala Thr Gln Trp Leu Glu Ser Met Gly Leu Gly Gly Met Glu
                             120
   Asp Arg Arg Ile Gly Gln Leu Ser Gly Gly Gln Ala Gln Arg Val Thr
                         135
   Ile Ala Arg Ser Gln Val Ile Asp Pro Ser Ile Val Phe Ala Asp Glu
                                        155
                     150
   Pro Thr Gly Ala Leu Asp Ser Ala Thr Ala Val Glu Val Met Ala Ile
                  165
                                     170
   Leu Leu Ser Ala Thr Thr Gly Arg Gly Arg Thr Leu Val Val Val Thr
              180
                                 185
   His Asp Glu Asp Val Ala Arg Arg Cys Gln Arg Ile Leu His Leu His
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   Asp Gly Arg Ile Val Ser Asp His Val Arg His Ser Asp Gly Arg Trp
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   <213> Homo sapiens
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   actgtcctca tcatgtgtga cttggactgt ggaccagccc ctcgggctct gctctgctga
   cetatattet ttgtetettg tteetgagaa getgggagtt gagacecagt aaggtgttgt
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  <211> 59
   <212> PRT
   <213> Homo sapiens
   <400> 1996
  His His His His Tyr Gln His His His His His Tyr His Leu Tyr
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  His His His Val Met Thr Leu Asn Thr Val Lèu Ile Met Cys Asp Leu
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tteetgtteg tgeggttttt gegttttgat ttettgeatg ettetgeege ggeeaaggtt
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tatggctacg cgt
313
<210> 1998
<211> 104
<212> PRT
<213> Homo sapiens
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Lys Lys Asp Leu Gly Lys Leu His Lys Pro Val Ser Ile Gly Arg Arg
Glu Met Leu Val Gly Leu Ala Ile Gly Gly Gly Ile Gly Phe Tyr Asp
                            40
Gly Leu Phe Gly Pro Gly Thr Gly Ser Phe Leu Met Phe Leu Phe Val
                        55
Arg Phe Leu Arg Phe Asp Phe Leu His Ala Ser Ala Ala Ala Lys Val
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Val Asn Leu Ala Thr Asn Val Ala Ala Leu Cys Phe Phe Ile Pro Ser
Gly Asn Val Leu Tyr Gly Tyr Ala
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<210> 1999
<211> 399
<212> DNA
<213> Homo sapiens
<400> 1999
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120
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ggaagaatgg atcttactct cgctgaccct gagattgtcg ttaacaatgg cgatgatcat
gtgattatgt ctgtgaagtc caagactatg gtcgggcagt tggttgacta tggccgtata
actiticgting atateacconn circletateac cannot cannot be active atateacconn cannot be active at a construction and active atateacconnection at a construction 
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ggaaagccca tggatgacat cgattcgtcc ttaaagctt
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<211> 91
<212> PRT
<213> Homo sapiens
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Asp His Val Ile Met Ser Val Lys Ser Lys Thr Met Val Gly Gln Leu
Val Asp Tyr Gly Arg Ile Thr Phe Val Asp Met Thr Gly Ser Ile Thr
                                                                     40
Gln Gly Gln Asn Asp Ala Ala Gln Val Val Gly Thr Asn Val Lys Leu
                                                                                                            60
                                                           55
Asn Ser Gln Ala Val Asp Ala Phe Ala Gly Phe Tyr Gln Ala Gly Lys
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                                                                                                  75
Pro Met Asp Asp Ile Asp Ser Ser Leu Lys Leu
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                                                                                        90
<210> 2001
<211> 1434
<212> DNA
<213> Homo sapiens
<400> 2001
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ttggtgactg ctggggcagg tgtcaacgag gccgactgta aaggctgctc tcccctccac
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agggaccaca agggccggac cgcactcttc ctggccacgg agcgcggctc tactgagtgt
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1200
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1320
ctccggatgc tgctgcagca tcaagctgag gtgaacgcca ctgaccacac tggccgcact
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1434
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<213> Homo sapiens
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Arg Arg Asp Lys Phe Gly Arg Thr Pro Leu His Tyr Ala Ala Ala Asn
Gly Ser Tyr Gln Cys Ala Val Thr Leu Val Thr Ala Gly Ala Gly Val
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Asn Glu Ala Asp Cys Lys Gly Cys Ser Pro Leu His Tyr Ala Ala Ala
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Ser Asp Thr Tyr Arg Xaa Ser Gly Thr Pro Tyr Thr Phe Gln Pro
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<213> Homo sapiens
<400> 2003
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240
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aggatgaaaa ccgaagaaga ggcccggact catacagaga ttgaaatgtt ccttagaaag
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Phe Ser Asp Val Ile Ala Asp Thr Ile Lys Glu Leu Gln Asp Ser Ala
Thr Tyr Asn Ser Leu Leu Gln Ala Leu Ser Lys Glu Arg Glu Asn Lys
Met His Phe Tyr Asp Ile Ile Ser Arg Glu Glu Lys Gly Arg Lys Gln
Ile Ile Ser Leu Gln Lys Gln Leu Ile Asn Phe Lys Lys Glu Trp Gln
Phe Glu Val Gln Ser Gln Asn Glu Tyr Ile Ala Asn Leu Lys Asp Gln
                                    90
Leu Gln Glu Met Lys Ala Lys Ser Asn Leu Glu Asn Arg Tyr Met Lys
                                                     110
                                105
Thr Asn Thr Glu Leu Gln Ile Ala Gln Thr Gln Lys Lys Cys Asn Arg
                            120
Thr Glu Glu Leu Leu Val Glu Glu Ile Glu Lys Leu Arg Met Lys Thr
                                            140
                        135
Glu Glu Glu Ala Arg Thr His Thr Glu Ile Glu Met Phe Leu Arg Lys
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                    150
Glu Gln Gln Val Gly Pro His Ser Phe Ser Met Leu
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<213> Homo sapiens
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354
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<212> PRT
<213> Homo sapiens
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Leu Ile Asp Pro Gln Pro Cys Gly Glu Phe Gln Gly Gly Ile Val Leu
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Val Ile Gly Val Arg Gly Gly Leu Xaa Ala Lys Ala Ala Leu Thr Phe
                            40
Gly Lys Arg Asn Gly Lys Pro Ala Val Ser Gln Gly Leu Leu Thr Gly
Trp Val Gly Phe Gly Leu Ile Leu Gln Pro Val Leu Cys Leu Leu Arg
                    70
                                         75
Trp Thr His Met Glu Thr Arg Leu Gly Ser Ser Ser Gln Cys Leu Leu
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Pro Ala Leu Val Cys Pro Glu Asn Asn Cys Lys Asp Ile Val Ala
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<213> Homo sapiens
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tgtgcgtatg tgtgcatann catgtgcaca catgtacaca cgtgtacatg ttcatgcatg
tgcacqtqca tatqtqtaca cqtqtatqcq tqtacatqta tgaqcatatq tacacqtqtq
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<213> Homo sapiens
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Cys Ile Cys Val Cys Met His Ala Cys Ala Tyr Val Cys Ile Xaa Met
                                                45
Cys Thr His Val His Thr Cys Thr Cys Ser Cys Met Cys Thr Cys Ile
                        55
Cys Val His Val Tyr Ala Cys Thr Cys Met Ser Ile Cys Thr Arg Val
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Asp Val Cys Val Cys Met Cys Val Cys Thr Asp Met Pro Phe Pro Phe
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Ile Gln Ala Gly Leu Ser Ile Ala Gly Arg Gln Gly Gln Leu Ser
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<211> 288
<212> DNA
<213> Homo sapiens
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<210> 2010
<211> 96
<212> PRT
<213> Homo sapiens
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Asp Ile Thr Pro Leu Leu Ala Asn Pro Asn Gly Phe Ser Ala Ala Ile
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            20
                                25
Met Glu Ala Arg Gly Phe Leu Phe Ala Ala Pro Val Ala Leu Ala Ile
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40
Gly Ala Gly Phe Val Pro Val Arg Lys Pro Gly Lys Leu Pro Gly Gln
Val Tyr Ser Glu Thr Phe Ala Met Glu Tyr Gly Glu Glu Thr Leu Thr
Val His Gln Tyr Ala Ile Lys Pro Gly Ser Arg Val Ile Ile Val Asp
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<211> 384 -
<212> DNA
<213> Homo sapiens
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aagcaaatgt gagccgaggg gacagtgccg teettegtte eteggcaact eecacgagge
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384
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<211> 123
<212> PRT
<213> Homo sapiens
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Pro Leu Gly Ser His Leu Leu Ser Leu Ser Arg Tyr Leu Ala Phe Ser
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Val Ile Val Thr Asn Leu Cys Ser Pro Phe Tyr Gln Phe Thr Ile Cys
Ser Leu Pro His Ser Pro Ile Asn Lys Pro Ser Asn Pro Ser Ser Thr
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Val Asp Phe Tyr Ile Arg Pro Ser Gly Gly Phe Thr Gly Arg Leu Ala
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Asn Ser Asp Glu Leu Glu Thr Thr Gly Ala Val Ser Tyr Thr Val Glu
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Phe Val Gly Leu Ser Ser Ala Thr Phe Gly Ile Phe Ile Pro Phe Leu
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Pro His Ala Trp Lys Tyr Ile Ala Tyr Val Val Ser Phe Ser Ser Trp
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His Gly Leu Ser Gly Arg Gly Ser Trp Arg Thr Leu Arg Trp Thr Trp
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Leu Trp Gly Leu Gly His Gly Cys Pro Val Ala Pro Val Thr Cys Pro
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His Ile Pro Val Asp Lys Ile Gly Glu Val Ile Gly Pro Lys Gly Lys
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Met Ile Asn Gln Ile Gln Asp Asp Thr Gly Ala Asn Ile Ser Ile Glu
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Asp Asp Gly Thr Ile Phe Ile Gly Ala Asp Asn Gly Asp Ser Ala Glu
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Val Gly Glu Arg Tyr Leu Gly Thr Val Val Lys Thr Thr Ser Phe Gly
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7920
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<210> 2030
<211> 794
<212> PRT
<213> Homo sapiens
<400> 2030
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Ser Leu Ala Ser Ala Ser Ser Asp Glu Glu Gly Ser Gln Asp Glu Ser
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Leu Asp Ser Lys Thr Thr Leu Thr Ser Asp Glu Ser Val Lys Asp His
                            40
Thr Thr Ala Gly Arg Val Val Ala Gly Gln Ile Phe Leu Asp Ser Glu
                                            60
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Glu Ser Glu Leu Glu Ser Ser Ile Gln Glu Glu Glu Asp Ser Leu Lys
                                        75
                    70
Ser Gln Glu Gly Glu Ser Val Thr Glu Asp Ile Ser Phe Leu Glu Ser
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				85					90					95	
Pro	Asr	Pro	Glu 100		Lys	Asp	Туг	Glu 105	Glu	Pro	Lys	Lys	val	. Arg	Lys
Pro	Ala	Lev 119	Thr		lle	Glu	Gly 120	Thr		His	Gly	Glu 125	Pro		His
Phe	Pro	Phe		Phe	. Leu	Asp	Lys		Туг	Asp	Glu 140	Cys		Ser	Asp
Gly 145	Arg		Asp	Gly	Arg	Leu		Cys	Ala	Thr	Thr		Asp	Туг	Lys 160
		Glu	Lys	Trp	Gly	•	Cys	Glu	Thr 170	Glu		Glu	Ala	Ala 175	Lys
Arg	Arg	Ğlri	Met 180	Gln		.Ala	Glu	Met	Met		Gln	Thr	Gly	Met	Lys
Ile	Leu	Asn 195	Gly		Asn	Lys	Lys 200	Ser		Lys	Arg	Glu 205	Ala		Arg
Tyr	Leu 210	Gln		Ala	Ala	Ser 215	Met		His	Thr	Lys 220			Glu	Arg
Val 225	Ser		Ala	Leu	Leu 230			Asp	Tyr	Leu 235		Gln	Asn	Ile	Gln 240
Ala	Ala	Arg	Glu	Met 245	Phe	Glu	Lys	Leu	Thr 250		Glu	Gly	Ser	Pro	Lys
Gly	Gln	Thr	Ala 260		Gly	Phe	Leu	Tyr 265	Ala	Ser	Gly	Leu	Gly 270	Val	Asn
Ser	Ser	Gln 275	Ala	Lys	Ala	Leu	Val 280	Tyr	Tyr	Thr	Phe	Gly 285	Ala	Leu	Gly
Gly	Asn 290	Leu	Ile	Ala	His	Met 295	Val	Leu	Gly	Tyr	Arg 300	Tyr	Trp	Ala	Gly
Ile 305	Gly	Val	Leu	Gln	Ser 310	Cys	Glu	Ser	Ala	Leu 315	Thr	His	Tyr	Arg	Leu 320
				325	Ala				330			-	_	335	
			340		Leu			345					350		
		355			Glu		360					365			
	370				Gln	375					380				
385					Val 390					395				_	400
				405					410					415	
			420		Glu			425					430		
		435			Phe		440					445			٠
_	450		_		Gly	455		-			460	_	_		
465			•		470					475	-				Gln 480
				485	Gln				490					495	
	_		500	-	Asp	-	_	505			_	•	510		
Ala	Ser	Gln	Gly	Gly	His	Ile	Leu	Ala	Phe	Tỳr	Asn	Leu	Ala	Gln	Met

520

His Ala Ser Gly Thr Gly Val Met Arg Ser Cys His Thr Ala Val Glu

515

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535
                                           540
Leu Phe Lys Asn Val Cys Glu Arg Gly Arg Trp Ser Glu Arg Leu Met
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                                        555
Thr Ala Tyr Asn Ser Tyr Lys Asp Gly Asp Tyr Asn Ala Ala Val Ile
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                                    570
Gln Tyr Leu Leu Ala Glu Gln Gly Tyr Glu Val Ala Gln Ser Asn
                                585
Ala Ala Phe Ile Leu Asp Gln Arg Glu Ala Ser Ile Val Gly Glu Asn
                            600
Glu Thr Tyr Pro Arg Ala Leu Leu His Trp Asn Arg Ala Ala Ser Gln
                        615
                                            620
Gly Tyr Thr Val Ala Arg Ile Lys Leu Gly Asp Tyr His Phe Tyr Gly
                                        635
Phe Gly Thr Asp Val Asp Tyr Glu Thr Ala Phe Ile His Tyr Arg Leu
                645
                                    650
Ala Ser Glu Gln Gln His Ser Ala Gln Ala Met Phe Asn Leu Gly Tyr
                                665
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Met His Glu Lys Gly Leu Gly Ile Lys Gln Asp Ile His Leu Ala Lys
                            680
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Arg Phe Tyr Asp Met Ala Ala Glu Ala Ser Pro Asp Ala Gln Val Pro
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Val Phe Leu Ala Leu Cys Lys Leu Gly Val Val Tyr Phe Leu Gln Tyr
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                                        715
Ile Arg Glu Thr Asn Ile Arg Asp Met Phe Thr Gln Leu Asp Met Asp
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                                    730
Gln Leu Leu Gly Pro Glu Trp Asp Leu Tyr Leu Met Thr Ile Ile Ala
            740
                                745
Leu Leu Gly Thr Val Ile Ala Tyr Arg Gln Arg Gln His Gln Asp
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Glu Gly Pro Pro Glu Gln Gln Pro Pro Gln
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<212> DNA
<213> Homo sapiens
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aaccccgtgc cgcacctgga cacgcatctg ctcggcggct ggatgaaacc tgccgaacag
cgcagcgcga tcgaacaggc ttccctggac cgctccaatc aattgaccga cgaattgctc
geogeogaeg tgetggtgat ggetgeaceg atgtacaact tegetatece cageacecte
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ccccagggat tgctgcacgg caagcgcgcg attgtgctga ccgctcgcgg cggcattcat
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660
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662
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<212> PRT
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Ile Ile Glu Ser Ser Ala Arg Gln Gln Asp Ser Ile Ser Arg Gln Leu
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Thr Gln Gln Phe Ile Ser Gln Trp Gln Ala Ala His Pro Ala Asp Gln
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Ile Thr Val Arg Asp Val Ala Leu Asn Pro Val Pro His Leu Asp Thr
                             40
His Leu Leu Gly Gly Trp Met Lys Pro Ala Glu Gln Arg Ser Ala Ile
                        55
Glu Gln Ala Ser Leu Asp Arg Ser Asn Gln Leu Thr Asp Glu Leu Leu
                    70
Ala Ala Asp Val Leu Val Met Ala Ala Pro Met Tyr Asn Phe Ala Ile
                                    90
Pro Ser Thr Leu Lys Ala Trp Leu Asp His Val Leu Arg Ala Gly Val
                                105
Thr Phe Lys Tyr Thr Ala Thr Gly Pro Gln Gly Leu Leu His Gly Lys
                            120
Arg Ala Ile Val Leu Thr Ala Arg Gly Gly Ile His Thr Gly Ala Ser
                        135
                                            140
Ser Asp His Gln Glu Pro Tyr Leu Arg Gln Val Met Ala Phe Ile Gly
                    150
                                        155
Ile His Asp Val Thr Phe Ile His Ala Glu Gly Val Asn Leu Ser Gly
                                   170
Asp Phe Gln Glu Lys Gly Leu Asn His Ala Lys Ala Leu Leu Ala Gln
                                185
Leu Val Ala
       195
<210> 2033
<211> 380
<212> DNA
<213> Homo sapiens
<400> 2033
aaattttaaa acggtcatca tttaacaggc gaagctgtaa aacgcagtct tgaagaggga
60
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atgaaaaaa qtgatttgtt aaaaggatca cttcctatca aatcaatcaa cgctcatgga
caaaaagtca caatcaatac taaagaacct tatccagaat taaagtctga actcgcaagc
180
ccatttgctg ctatatacga cacaaaagct aaaaacaaag taactgatca acctgttggt
acggqtcctt atcaaattga cagttataaa cgttcgcaaa aaatcgtatt aaaacaattc
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ggtaatantc gtgttgatca
380
<210> 2034
<211> 106
<212> PRT
<213> Homo sapiens
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Met Lys Lys Ser Asp Leu Leu Lys Gly Ser Leu Pro Ile Lys Ser Ile
                                   10
Asn Ala His Gly Gln Lys Val Thr Ile Asn Thr Lys Glu Pro Tyr Pro
                               25
Glu Leu Lys Ser Glu Leu Ala Ser Pro Phe Ala Ala Ile Tyr Asp Thr
Lys Ala Lys Asn Lys Val Thr Asp Gln Pro Val Gly Thr Gly Pro Tyr
Gln Ile Asp Ser Tyr Lys Arg Ser Gln Lys Ile Val Leu Lys Gln Phe
                   70
Lys Asp Tyr Trp Gln Gly Thr Pro Lys Leu Lys Arg Ile Asn Val Thr
                                   90
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Tyr His Glu Asp Gly Asn Xaa Arg Val Asp
           100
                               105
<210> 2035
<211> 495
<212> DNA
<213> Homo sapiens
<400> 2035
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tatgetntaa tgttcccctt tcatctcgca tgtctccact tctgctgcta ttgctgttac
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tttttctct tctcattcca gttattatac agaactattc aacttcaaga tttgtggggt
420
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tttgttttgt tttgttttga gaccccatct caaaaaaaaa aaaaaccagc tttctcctca
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acttggggga acctt
495
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<211> 98
<212> PRT
<213> Homo sapiens
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Xaa Ile Pro Leu Leu Leu Ala Thr Gln Ala Gln Ala Thr Arg Ser His
Asp Thr Ser Cys Leu His Phe Phe His Val Cys Met Tyr Val Cys Met
Tyr Val Cys Met Tyr Val Cys Met Tyr Ala Xaa Met Phe Pro Phe His
                             40
Leu Ala Cys Leu His Phe Cys Cys Tyr Cys Cys Tyr Leu Cys Val Gly
                         55
                                             60
Ala Pro Asn Gly Val Pro Tyr Phe Ser Asp Ala Val Phe Ile Phe Leu
                    70
                                         75
Asp Ser Phe Tyr Cys Leu Val Phe Ser Leu His Asn Pro Tyr Cys Ser
                85
                                     90
                                                         95
Leu Tyr
<210> 2037
<211> 327
<212> DNA
<213> Homo sapiens
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ggaagagtga ggttggagtg cctttcccgc gctcatcttc cgtccccact ccacgcccag
caaatccaaa caccgcggcc tctggtggcc cgggcttcca tttcccctgg aggggcaaqg
gegttteete tteegeecaa ceggggeget gageggeggg aacageggeg ggggetttgt
ggtcccgggg ggtccgagtg tgtgtcaggg gctggggcgg gggatgggcg cggcccctgg
300
gtatccctca cggtcctggt tcatgag
327
<210> 2038
<211> 98
<212> PRT
<213> Homo sapiens
<400> 2038
Met Glu Lys Trp Gly Arg Thr Gln Thr Gly Arg Val Arg Leu Glu Cys
1
                 5
                                    10
Leu Ser Arg Ala His Leu Pro Ser Pro Leu His Ala Gln Gln Ile Gln
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```
Thr Pro Arg Pro Leu Val Ala Arg Ala Ser Ile Ser Pro Gly Gly Ala
                            40
Arg Ala Phe Pro Leu Pro Pro Asn Arg Gly Ala Glu Arg Arg Glu Gln
Arg Arg Gly Leu Cys Gly Pro Gly Gly Ser Glu Cys Val Ser Gly Ala
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Gly Ala Gly Asp Gly Arg Gly Pro Trp Val Ser Leu Thr Val Leu Val
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His Glu
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<211> 307
<212> DNA
<213> Homo sapiens
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accggtacgg gcatatgcct gggcggcatt cttttggatg ttgcgaagaa aggacgcatt
eggegtgeeg aaageeaggg atcetteace gtagacettg gacegatgga ggeeceegge
aatcgagtcc ttcgaaattc ccccttggca tacatgtcgg ccatcgtcgt cagccagagt
300
aacgcgt
307
<210> 2040
<211> 94
<212> PRT
<213> Homo sapiens
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Met Ala Asp Met Tyr Ala Lys Gly Glu Phe Arg Arg Thr Arg Leu Pro
                                    10
Gly Ala Ser Ile Gly Pro Arg Ser Thr Val Lys Asp Pro Trp Leu Ser
                                25
Ala Arg Arg Met Arg Pro Phe Phe Ala Thr Ser Lys Arg Met Pro Pro
                            40
Arg His Met Pro Val Pro Val Leu Ala Gln Ser Leu Ser Met Thr Ala
Ser Ser Arg Cys Phe Pro Gly Asn Thr Ser Arg Ser Arg Arg Arg Pro
                                                             80
                    70
Arg Thr Leu Arg Ser Arg Pro Leu Ser Gln Ser Gly Ser Pro
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                                    90
<210> 2041
<211> 348
<212> DNA
<213> Homo sapiens
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<400> 2041

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gecagettee tgecgttege cagaegeate gecgaggegg gggtgegeaa ttegetegee
cagctggtcg ccaagctgac cctgcccggc atgcccgaca tctaccaggg ctgcgagatg
tgggacctca gcctggtcga ccgggacaat cgccgccccg tcgactacga gacacgcgac
geggecetgg ceggetgggt egegaeeeeg ceggaggaac gegeegegge getgegeace
ctgctgacgg attggcgcag cggcgcggtc aagctggccg tgacgcgt
348
<210> 2042
<211> 116
<212> PRT
<213> Homo sapiens
<400> 2042
Xaa Arg Arg Cys Arg Asp Ser Pro Ala Met Arg Ser Asn Pro Ala Arg
Gly Ala Phe Leu Ala Ser Phe Leu Pro Phe Ala Arg Arg Ile Ala Glu
                                 25
                                                     30
Ala Gly Val Arg Asn Ser Leu Ala Gln Leu Val Ala Lys Leu Thr Leu.
        35
                            40
                                                 45 -
Pro Gly Met Pro Asp Ile Tyr Gln Gly Cys Glu Met Trp Asp Leu Ser
                        55
Leu Val Asp Arg Asp Asn Arg Arg Pro Val Asp Tyr Glu Thr Arg Asp
                    70
Ala Ala Leu Ala Gly Trp Val Ala Thr Pro Pro Glu Glu Arg Ala Ala
                                    90
Ala Leu Arg Thr Leu Leu Thr Asp Trp Arg Ser Gly Ala Val Lys Leu
            100
                                105
Ala Val Thr Arg
        115
<210> 2043
<211> 712
<212> DNA
<213> Homo sapiens
<400> 2043
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gaagattegg tgegeagage cetgtetega atgegetece gggatgeegt ceaeggegag
gaacgtgccg ataccgggga tggaccccgc cggtggatca ttgatccgat cgacggcact
180
gcgaattttc tgcgtggggt cccagtgtgg gccaccctca ttgccctcag cgtcgaggac
cagattgtcg catctgtggt ctctgctcct gccctcaagc gacgctggtg ggcagcccgt
300
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ggctcaggag catggtcggg caaatccctg gcctcagcga caccgatcca cgtctcgaat
360
gtgcgcaatc ttgccgacgc attcttgtcc tactcttcgc tgcacggatg ggtcgagagc
420
ggacgagggc acgggttcgg tgaactcatg cggtcggtgt ggcggacccg agccttcggc
gatttctggt cttacatgat ggtggcagaa ggtgtcgtcg atgtggcatg cgagccggaa
ctcagcctgc acgacatggc cgccctcgac gctatcgtca ccgaggcggg cggtaagttc
accegeteteg atggeaaaga eggeeegtgg tetgggaatg etetggegte gaatggttte
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<210> 2044
<211> 233
<212> PRT
<213> Homo sapiens
<400> 2044
Asp Leu Thr Val Ser Thr Lys Pro Asp His Ser Glu Val Thr Asp Ala
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Asp Leu Ala Val Glu Asp Ser Val Arg Arg Ala Leu Ser Arg Met Arg
Ser Arg Asp Ala Val His Gly Glu Glu Arg Ala Asp Thr Gly Asp Gly
Pro Arg Arg Trp Ile Ile Asp Pro Ile Asp Gly Thr Ala Asn Phe Leu
                        55
Arg Gly Val Pro Val Trp Ala Thr Leu Ile Ala Leu Ser Val Glu Asp
                                         75
Gln Ile Val Ala Ser Val Val Ser Ala Pro Ala Leu Lys Arg Arg Trp
                85
Trp Ala Ala Arg Gly Ser Gly Ala Trp Ser Gly Lys Ser Leu Ala Ser
                                 105
Ala Thr Pro Ile His Val Ser Asn Val Arg Asn Leu Ala Asp Ala Phe
                             120
Leu Ser Tyr Ser Ser Leu His Gly Trp Val Glu Ser Gly Arg Gly His
                        135
                                             140
Gly Phe Gly Glu Leu Met Arg Ser Val Trp Arg Thr Arg Ala Phe Gly
                                         155
                    150
Asp Phe Trp Ser Tyr Met Met Val Ala Glu Gly Val Val Asp Val Ala
                                     170
Cys Glu Pro Glu Leu Ser Leu His Asp Met Ala Ala Leu Asp Ala Ile
                                 185
            180
Val Thr Glu Ala Gly Gly Lys Phe Thr Gly Leu Asp Gly Lys Asp Gly
                                                 205
                             200
Pro Trp Ser Gly Asn Ala Leu Ala Ser Asn Gly Phe Leu His Asp Gln
                                             220
                        215
Ala Leu Ala Met Val Gln Pro Gln Glu
225
<210> 2045
<211> 406
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<212> DNA
<213> Homo sapiens
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cantacagge tttggccgag gegggttgga agaaaceggt caaceggtgg tttggccceg
catcaatgcc cagaaccaga agcettgcgc attcgtccca ggccgttcaa ggccgatggc
gagategteg egatgactgg egaeggtgte aaegaegeee eetegeteaa ggeggeeeat
ateggtgteg ccatggacaa acgeggcace gacgtegege gegaggette egecatggte
ctgctcgagg atgattttgg atcgatcgtg cagtcggtcc ggctcg
406
<210> 2046
<211> 135
<212> PRT
<213> Homo sapiens
<400> 2046
Xaa Trp Thr Pro Ala Thr Met Pro Pro Pro His Gly Ser Ile Ala Asp
Pro Gly Gln Gly Met Arg Arg Met Gly Asp Gly Asp Gly Pro Gly Ala
                                25
Gly Pro Gly Arg Ser Leu Arg Arg Xaa Tyr Arg Leu Trp Pro Arg Arg
Val Gly Arg Asn Arg Ser Thr Gly Gly Leu Ala Pro His Gln Cys Pro
Glu Pro Glu Ala Leu Arg Ile Arg Pro Arg Pro Phe Lys Ala Asp Gly
Glu Ile Val Ala Met Thr Gly Asp Gly Val Asn Asp Ala Pro Ser Leu
                                    90
Lys Ala Ala His Ile Gly Val Ala Met Asp Lys Arg Gly Thr Asp Val
                                105
Ala Arg Glu Ala Ser Ala Met Val Leu Glu Asp Asp Phe Gly Ser
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                                                125
Ile Val Gln Ser Val Arg Leu
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                        135
<210> 2047
<211> 796
<212> DNA
<213> Homo sapiens
<400> 2047
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tgaggaattt gagaagaaga ttccaagtgt ggaagacagc cttggagagg gcagcaggga
120
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tgctggccgg ccaggagaga gaggatccgg gggcttgttc agtcctagca ctgcccacgt
180
geeggatggg geaeteggge agagagaeca gageagetgg caaaacagtg atgetageca
240
ggaggtggga gggcatcagg agagacagca ggcaggggct cagggccctg gcagtgctga
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780
caaagatttg gctgag
796
<210> 2048
<211> 160
<212> PRT
<213> Homo sapiens
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Gln Arg Glu Ala Ala Phe Ser Pro Gly Gln Gln Asp Trp Ser Arg Asp
                               25
Phe Cys Ile Glu Ala Ser Glu Arg Ser Tyr Gln Phe Gly Ile Ile Gly
                           40
Asn Asp Arg Val Ser Gly Ala Gly Phe Ser Pro Ser Ser Lys Met Glu
                       55
                                           60
Gly Gly His Phe Val Pro Pro Gly Lys Thr Thr Ala Gly Ser Val Asp
                    70
Trp Thr Asp Gln Leu Gly Leu Arg Asn Leu Glu Val Ser Ser Cys Val
                                   90
Gly Ser Gly Gly Ser Ser Glu Ala Arg Glu Ser Ala Val Gly Gln Met
                                                   110
                               105
            100
Gly Trp Ser Gly Gly Leu Ser Leu Arg Asp Met Asn Leu Thr Gly Cys
                                               125
                           120
Leu Glu Ser Gly Gly Ser Glu Glu Pro Gly Gly Ile Gly Ile Gly Glu
                                           140
                        135
Lys Asp Trp Thr Ser Asp Val Asn Val Lys Ser Lys Asp Leu Ala Glu
                                                           160
                                       155
                    150
<210> 2049
<211> 516
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<212> DNA
<213> Homo sapiens
<400> 2049
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ctgttcctcg ggatagtgtt cgggctgatg ccacgtctga tgtgcggggt gattgaactg
gecaacgete cecegecaat egecetggge etgttagtag tegecattag eggecettea
gectacqgtg cegectgtge ggtgatgttg gteagttggg cteegetgge egeceattgt
gettegttgt tggeggaage cegeaegeag ceetatatee geatgttgee ggtattgge
gteggeegat ggegeaeget gaeceaetae etgetgeegg egetetetge teecetgetg
egecaegeca tgttgegtet geegggeatt gegetggege tggeggeett gggttttttt
420
ggtcttgggc cgcagccacc cagtgcagaa tgggggctgg tgctggcgga aggcatgcct
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516
<210> 2050
<211> 172
<212> PRT
<213> Homo sapiens
<400> 2050
Arg Val Ala Tyr Gly Ala Leu Asn Thr Ser Leu Leu Ala Leu Ala Val
Ser Phe Ala Ser Leu Phe Leu Gly Ile Val Phe Gly Leu Met Pro Arg
Leu Met Cys Gly Val Ile Glu Leu Ala Asn Ala Pro Pro Pro Ile Ala
                            40
Leu Gly Leu Leu Val Val Ala Ile Ser Gly Pro Ser Ala Tyr Gly Ala
                        55
Ala Cys Ala Val Met Leu Val Ser Trp Ala Pro Leu Ala Ala His Cys
                    70
                                        75
Ala Ser Leu Leu Ala Glu Ala Arg Thr Gln Pro Tyr Ile Arg Met Leu
                                    90
Pro Val Leu Gly Val Gly Arg Trp Arg Thr Leu Thr His Tyr Leu Leu
                                105
Pro Ala Leu Ser Ala Pro Leu Leu Arg His Ala Met Leu Arg Leu Pro
                            120
Gly Ile Ala Leu Ala Leu Ala Leu Gly Phe Phe Gly Leu Gly Pro
Gln Pro Pro Ser Ala Glu Trp Gly Leu Val Leu Ala Glu Gly Met Pro
                                        155
                   150
Tyr Leu Glu Arg Ala Pro Trp Gly Val Leu Ala Pro
<210> 2051
<211> 411
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<212> DNA
<213> Homo sapiens
<400> 2051
gagcaaaact atcgttctac cggcaatatt ctgaaaagtg ccaaccaact tatttcgaat
aatagtgatc gtctcggtaa gaatttatgg accgacggtg aaatggggga gccagtaggt
atttatgcag catttaatga attagatgag gcaaaatttg tggcgtctca aatccaaaat
tgggtagatg atggtgggga attagatgat tgtgctgttt tatatcgtag taatagccaa
tetegtgtta ttgaagaage ettgattegt tgecaaatte ettategaat ttatggeggg
atgcgattct tcgaacgcca agaaattaaa gatgcgttgg catatttacg tttaattaat
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411
<210> 2052
<211> 137
<212> PRT
<213> Homo sapiens
<400> 2052
Glu Gln Asn Tyr Arg Ser Thr Gly Asn Ile Leu Lys Ser Ala Asn Gln
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Leu Ile Ser Asn Asn Ser Asp Arg Leu Gly Lys Asn Leu Trp Thr Asp
Gly Glu Met Gly Glu Pro Val Gly Ile Tyr Ala Ala Phe Asn Glu Leu
Asp Glu Ala Lys Phe Val Ala Ser Gln Ile Gln Asn Trp Val Asp Asp
Gly Glu Leu Asp Asp Cys Ala Val Leu Tyr Arg Ser Asn Ser Gln
Ser Arg Val Ile Glu Glu Ala Leu Ile Arg Cys Gln Ile Pro Tyr Arg
Ile Tyr Gly Gly Met Arg Phe Phe Glu Arg Gln Glu Ile Lys Asp Ala
            100
                                105
Leu Ala Tyr Leu Arg Leu Ile Asn Asn Arg Gln Asp Asp Ala Ala Phe
                            120
        115
                                                125
Glu Arg Val Ile Asn Thr Pro Thr Arg
    130
                        135
<210> 2053
<211> 287
<212> DNA
<213> Homo sapiens
<400> 2053
nccatggaag ccttcaatct tgtaagagaa agtgaacagc tgttttccat atgccaaatc
ccgctcctct gctggatcct gtgtaccagt ctgaagcaag agatgcagaa aggaaaagac
120
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ctggccctga cctgccagag cactacctct gtgtactcct ctttcgtctt taacctgttc
acacctgagg gtgccgaggg cccgactccg caaacccagc accagctgaa ggccctgtgc
tecetggetg cagagggtat gtggacagae acatttgagt tttgtga
287
<210> 2054
<211> 79
<212> PRT
<213> Homo sapiens
<400> 2054
Ile Cys Gln Ile Pro Leu Leu Cys Trp Ile Leu Cys Thr Ser Leu Lys
                                    10
Gln Glu Met Gln Lys Gly Lys Asp Leu Ala Leu Thr Cys Gln Ser Thr
                                25
Thr Ser Val Tyr Ser Ser Phe Val Phe Asn Leu Phe Thr Pro Glu Gly
        35
                            40
Ala Glu Gly Pro Thr Pro Gln Thr Gln His Gln Leu Lys Ala Leu Cys
                        55
Ser Leu Ala Ala Glu Gly Met Trp Thr Asp Thr Phe Glu Phe Cys
                    70
                                        75
<210> 2055
<211> 298
<212> DNA
<213> Homo sapiens
<400> 2055
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geegaggetg ctatgettgg ecageceate tecatgetta tececegtgt tgttggettt
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<210> 2056
<211> 99
<212> PRT
<213> Homo sapiens
<400> 2056
Xaa Arg Val Val Met Asn Asn Asp Gly Val Leu Tyr Pro Asp Thr Cys
1
Val Gly Thr Asp Ser His Thr Thr Met Glu Asn Gly Leu Gly Ile Leu
            20
                                25
Gly Trp Gly Val Gly Gly Ile Glu Ala Glu Ala Met Leu Gly Gln
Pro Ile Ser Met Leu Ile Pro Arg Val Val Gly Phe Lys Leu Thr Gly
```

```
55
Gln Thr Gln Pro Gly Val Thr Ala Thr Asp Val Val Leu Thr Ile Thr
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                                        75
Asp Met Leu Arg Gln His Gly Val Gly Gly Lys Phe Gly Glu Phe Tyr
                85
Gly Gly Ser
<210> 2057
<211> 569
<212> DNA
<213> Homo sapiens
<400> 2057
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ttcatggtct tcaataacca gaaaaagggg ctggatacag ttacagacta tcaccgtggt
ttggatatca cagaagccac tactacaact tcttacaccc aagatggaac gacctttaaa
agagaaacct tctcaagtta ccctgatgat gttactgtta ctcacttgac ccaaaaaggg
gacaaaaaac ttgattttac agtttggaat agcttaacag aagatttact tgctaacgga
gactactcag cggaatattc taactacaag agtggccatg ttacgacaga cccaaatggt
atcctactaa aaggtacagt caaagataat ggcctccagt tcgcatccta tctaggaatt
aaaacggacg gaaaagttac tgttcatga
569
<210> 2058
<211> 128
<212> PRT
<213> Homo sapiens
<400> 2058
Met Val Phe Asn Asn Gln Lys Lys Gly Leu Asp Thr Val Thr Asp Tyr
                                    10
His Arg Gly Leu Asp Ile Thr Glu Ala Thr Thr Thr Thr Ser Tyr Thr
Gln Asp Gly Thr Thr Phe Lys Arg Glu Thr Phe Ser Ser Tyr Pro Asp
Asp Val Thr Val Thr His Leu Thr Gln Lys Gly Asp Lys Lys Leu Asp
Phe Thr Val Trp Asn Ser Leu Thr Glu Asp Leu Leu Ala Asn Gly Asp
Tyr Ser Ala Glu Tyr Ser Asn Tyr Lys Ser Gly His Val Thr Thr Asp
                                    90
Pro Asn Gly Ile Leu Leu Lys Gly Thr Val Lys Asp Asn Gly Leu Gln
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110

105

100

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Phe Ala Ser Tyr Leu Gly Ile Lys Thr Asp Gly Lys Val Thr Val His
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 <211> 644
 <212> DNA
 <213> Homo sapiens
 <400> 2059
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agcaatcgac ctgtaggact cagccatgat cgactgggca tcctcgtata gtcgcgatgc
egcaacegee tgegetteea ageetgeage gaegtaagag geceteteae acaetgaace
gategeteca gacaacgtgg aagegataac ctegegtege ttetgetgat tetgggeeaa
gctcgacaag aagaaccgca gaggggcgac ggcctggtca gggagcgcac cttcagcgtt
cgtcttggtc tccgggacag caaaaagcgg ggaatcagcc aggccacgct ccqtcatqaq
teggeegagg teegeeggta ceteteteat ggetteeaca ggaacgeggt cacaccac
cgcgatcgac gcgtgcctct cttgagcctc gttgaggaaa tcccacggca cagcgtcagc
480
gtageggget getgaggtga caaagateea cagateegeg geetggagea actgageege
540
cagatcacga ttgcgggtca ccacagagtc gatgtccggg gcatcgagga tggccaaacc
tegeggaate ettgacteeg egacgagetg caaactegae gegt
<210> 2060
<211> 130
<212> PRT
<213> Homo sapiens
<400> 2060
Met Arg Glu Val Pro Ala Asp Leu Gly Arg Leu Met Thr Glu Arg Gly
                                    10
Leu Ala Asp Ser Pro Leu Phe Ala Val Pro Glu Thr Lys Thr Asn Ala
            20
                                25
Glu Gly Ala Leu Pro Asp Gln Ala Val Ala Pro Leu Arg Phe Phe Leu
                                                45
Ser Ser Leu Ala Gln Asn Gln Gln Lys Arg Arg Glu Val Ile Ala Ser
                                            60
Thr Leu Ser Gly Ala Ile Gly Ser Val Cys Glu Arg Ala Ser Tyr Val
                                        75
                                                            80
Ala Ala Gly Leu Glu Ala Gln Ala Val Ala Ala Ser Arg Leu Tyr Glu
Asp Ala Gln Ser Ile Met Ala Glu Ser Tyr Arg Ser Ile Ala Ala Gln
                                105
Ser Ala Asp Gly Thr Leu Leu Arg Gly Glu Val Leu Ala Arg Trp His
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120
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        115
Glu Phe
    130
<210> 2061
<211> 481
<212> DNA
<213> Homo sapiens
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atgctqtqat tacqcqccaq ccccgtcaca ccgtacgggt ggtaggactg ggcaaagaag
acgccgccac ctggatgcac tgaggtgtgc acagccacgt ggagatgatg ctgggggctc
acggtgactc tcaggaggcc ctggcctggc ctatctggag ccttctctgt gaaatgaggc
240
tggtaacgcc cactagcagg gttgtagggg acatggatct gtggccacct cctcaagggt
tgccacacgc accaggtect gactgggagt ceggececca gggcetgtgg atggetggee
tgggcccagc ctccgcccc aagggtgctg gcacctggca tgtgcccgac agttggggcc
ggctggtggg aaggtgtgtg tcaggtggcg gagcctcggt gccaggatct cactcacgcg
480
t
481
<210> 2062
<211> 133
<212> PRT
<213> Homo sapiens
<400> 2062
Met Pro Gly Ala Ser Thr Leu Gly Gly Gly Gly Trp Ala Gln Ala Ser
1
His Pro Gln Ala Leu Gly Ala Gly Leu Pro Val Arg Thr Trp Cys Val
                                25
Trp Gln Pro Leu Arg Arg Trp Pro Gln Ile His Val Pro Tyr Asn Pro
                            40
Ala Ser Gly Arg Tyr Gln Pro His Phe Thr Glu Lys Ala Pro Asp Arg
                                            60
Pro Gly Gln Gly Leu Leu Arg Val Thr Val Ser Pro Gln His His Leu
                    70
His Val Ala Val His Thr Ser Val His Pro Gly Gly Val Phe Phe
                                    90
Ala Gln Ser Tyr His Pro Tyr Gly Val Thr Gly Leu Ala Arg Asn His
                                105
                                                    110
Ser Ile Trp Gly His Thr Met Ala Thr Pro Ala Pro Ser Cys Val Ala
                                                125
                            120
        115
Leu Leu Thr Arg Leu
    130
```

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<210> 2063
<211> 419
<212> DNA
<213> Homo sapiens
<400> 2063
geeggegeg tegagegegt geettteaat ategaggeee aagaeatggt getgeteate
geggacacca atgeccegca catgetttee gaeggecaat aegeeteeeg eeggggeate
ategacgecg tecaatetge egeeggttge tecateegeg agatetegaa tgeggtggae
tttgccgcca ccgtcaatcc cgccgaggcg gaactctatc gccgccgcgt gcaccacgtg
gtggaagaaa ccaaccggac cctagatgcc gctaccgcgc tggcatcttc cgatctagat
acatteegge ggettatgeg egagageeac atetecetge gegacettta tgaggteace
actocggage tegactocgt ttttacegeg geeggegage tgggegeteg catgannnn
419
<210> 2064
<211> 139
<212> PRT
<213> Homo sapiens
<400> 2064
Ala Gly Ala Val Glu Arg Val Pro Phe Asn Ile Glu Ala Gln Asp Met
Val Leu Leu Ile Ala Asp Thr Asn Ala Pro His Met Leu Ser Asp Gly
Gln Tyr Ala Ser Arg Arg Gly Ile Ile Asp Ala Val Gln Ser Ala Ala
                            40
Gly Cys Ser Ile Arg Glu Ile Ser Asn Ala Val Asp Phe Ala Ala Thr
                        55
                                            60
Val Asn Pro Ala Glu Ala Glu Leu Tyr Arg Arg Val His His Val
                    70
                                        75
Val Glu Glu Thr Asn Arg Thr Leu Asp Ala Ala Thr Ala Leu Ala Ser
                                    90
Ser Asp Leu Asp Thr Phe Arg Arg Leu Met Arg Glu Ser His Ile Ser
                                105
            100
Leu Arg Asp Leu Tyr Glu Val Thr Thr Pro Glu Leu Asp Ser Val Phe
                                                125
                            120
Thr Ala Ala Gly Glu Leu Gly Ala Arg Met Xaa
                        135
   130
<210> 2065
<211> 598
<212> DNA
<213> Homo sapiens
<400> 2065
geeggegeta tggcetetet getegeegae geegeegatg ceetteeegg egeaaaggtg
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60

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cgcgcgaccg ttactggatc ggcgggattg ggaaccgcag aggcattggg ccttactttc
attcaqqaqq tcataqctga gacggccgcc gtccaacgtt ggaatcccga cgccgacgtg
180
cttctcgaac tcggtggtga ggatgccaag atcacctacc ttaagccggt ccccgaacag
cgcatgaatg gttcgtgtgc tggtggcacc ggtgccttca tcgaccagat ggctaccctg
300
ctgcacaccg acactecegg ceteaatgac etegeatece gagecaagac catecatecg
360
ategeetege getgtggtgt ttttgecaag teegaeette ageeceteat taacgaggga
geoegecaeg aggatetgge tgeeteggte etgeaggetg tegecaetea gtgeattgee
ggcctggcat gtggtcgccc gattcgaggt aaggtcatct tccttggcgg tccgcttcac
tttatgccaa gtttgcgaga cgctttctcg cgcgtcctcg acggtaaggt tgacgcgt
598
<210> 2066
<211> 199
<212> PRT
<213> Homo sapiens
<400> 2066
Ala Gly Ala Met Ala Ser Leu Leu Ala Asp Ala Ala Asp Ala Leu Pro
Gly Ala Lys Val Arg Ala Thr Val Thr Gly Ser Ala Gly Leu Gly Thr
                                25
Ala Glu Ala Leu Gly Leu Thr Phe Ile Gln Glu Val Ile Ala Glu Thr
Ala Ala Val Gln Arg Trp Asn Pro Asp Ala Asp Val Leu Leu Glu Leu
                                            60
                        55
Gly Glu Asp Ala Lys Ile Thr Tyr Leu Lys Pro Val Pro Glu Gln
Arg Met Asn Gly Ser Cys Ala Gly Gly Thr Gly Ala Phe Ile Asp Gln
                85
Met Ala Thr Leu Leu His Thr Asp Thr Pro Gly Leu Asn Asp Leu Ala
            100
                                105
                                                    110
Ser Arg Ala Lys Thr Ile His Pro Ile Ala Ser Arg Cys Gly Val Phe
                            120
                                                125
Ala Lys Ser Asp Leu Gln Pro Leu Ile Asn Glu Gly Ala Arg His Glu
                        135
Asp Leu Ala Ala Ser Val Leu Gln Ala Val Ala Thr Gln Cys Ile Ala
                                        155
                    150
Gly Leu Ala Cys Gly Arg Pro Ile Arg Gly Lys Val Ile Phe Leu Gly
                                    170
Gly Pro Leu His Phe Met Pro Ser Leu Arg Asp Ala Phe Ser Arg Val
                                185
            180
Leu Asp Gly Lys Val Asp Ala
        195
<210> 2067
<211> 366
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<212> DNA
<213> Homo sapiens
<400> 2067
ttccagcaga tgctgcaaac ctggacccgc agcggcacgc tgcaggaggc cgtggccaac
aagategeeg aatggetgga tgeegacetg caacagtggg acattteeeg egatgeaceg
tactteggtt tegagatece gggegageca ggcaagtatt tetacgtgtg getggaegeg
ccgatcggct acatggccag tttcaagaac ctgtgcgacc gcacgccgga gctggacttc
gatgetttet gggecaagga etecacegee gagetgtace attteategg caaggacate
gtcaacttcc acgccctgtt ctggccggcg atgctcgaag gctcgggcta ccgtaaaccg
360
accggt
366
<210> 2068
<211> 122
<212> PRT
<213> Homo sapiens
<400> 2068
Phe Gln Gln Met Leu Gln Thr Trp Thr Arg Ser Gly Thr Leu Gln Glu
1
Ala Val Ala Asn Lys Ile Ala Glu Trp Leu Asp Ala Asp Leu Gln Gln
Trp Asp Ile Ser Arg Asp Ala Pro Tyr Phe Gly Phe Glu Ile Pro Gly
                            40
Glu Pro Gly Lys Tyr Phe Tyr Val Trp Leu Asp Ala Pro Ile Gly Tyr
                        55
Met Ala Ser Phe Lys Asn Leu Cys Asp Arg Thr Pro Glu Leu Asp Phe
                                         75
                    70
Asp Ala Phe Trp Ala Lys Asp Ser Thr Ala Glu Leu Tyr His Phe Ile
                                    90
                85
Gly Lys Asp Ile Val Asn Phe His Ala Leu Phe Trp Pro Ala Met Leu
            100
Glu Gly Ser Gly Tyr Arg Lys Pro Thr Gly
                            120
        115
<210> 2069
<211> 280
<212> DNA
<213> Homo sapiens
<400> 2069
cctagagagg atggtggaga ctgtgcgtgt gcagggtgtt ccggaacctt ccctgggatg
catggggeet egeegeagge cateteteca gacetggget caecetgeee etgtgetgtt
geetttgget ggaattecae eccageette ttgeetcaag aacgeeette eccetteaga
180
```

tctcatgggc acaggccccg tcttcctaaa cggggtcaga gcccccagta atcatgacaa

```
agaccetete etegateaag etttggteaa geteetaeee
280
<210> 2070
<211> 90
<212> PRT
<213> Homo sapiens
<400> 2070
Met Val Glu Thr Val Arg Val Gln Gly Val Pro Glu Pro Ser Leu Gly
                                                        15
1
Cys Met Gly Pro Arg Arg Pro Ser Leu Gln Thr Trp Ala His Pro
Ala Pro Val Leu Leu Pro Leu Ala Gly Ile Pro Pro Gln Pro Ser Cys
                            40
Leu Lys Asn Ala Leu Pro Pro Ser Asp Leu Met Gly Thr Gly Pro Val
Phe Leu Asn Gly Val Arg Ala Pro Ser Asn His Asp Lys Asp Pro Leu
Leu Asp Gln Ala Leu Val Lys Leu Leu Pro
                85
<210> 2071
<211> 399
<212> DNA
<213> Homo sapiens
<400> 2071
acgegtgtcc agcagactta gaaagcaggt teetettgtc atacagcacg ttaacatage
tgacgaggcc tgggtgtctt catcagtact gtgatgactc tttcaccttt gacttcagat
getggegett tttacttttt gtgccaaact ctacacatga aacacttttg gaataactac
agacatgact ttctttatct ggggaaaagg agggcattaa accagattag gggctgggag
gggaggttgt caggggatga gctgctcctg aggaagaggc agagatcaag cttcactcag
caqctggatt ctcacctagt ttatagactg aaatcctgca aggtggttac aacagtgaac
aatatgttca tacataaaga ctctaccctc aggtgatca
399
<210> 2072
<211> 100
<212> PRT
<213> Homo sapiens
<400> 2072
Met Thr Leu Ser Pro Leu Thr Ser Asp Ala Gly Ala Phe Tyr Phe Leu
Cys Gln Thr Leu His Met Lys His Phe Trp Asn Asn Tyr Arg His Asp
```

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25
                                                     30
Phe Leu Tyr Leu Gly Lys Arg Arg Ala Leu Asn Gln Ile Arg Gly Trp
                             40
Glu Gly Arg Leu Ser Gly Asp Glu Leu Leu Leu Arg Lys Arg Gln Arg
Ser Ser Phe Thr Gln Gln Leu Asp Ser His Leu Val Tyr Arg Leu Lys
Ser Cys Lys Val Val Thr Thr Val Asn Asn Met Phe Ile His Lys Asp
Ser Thr Leu Arg
            100
<210> 2073
<211> 339
<212> DNA
<213> Homo sapiens
<400> 2073
ggatccactt ctgtgccttt ccagcttcta gaggctgcct gcgttccttg gctcgtggcc
cettecteca cetteaagee ageageggag geetgagtee tteteatgee atetetetgt
tetetetet geeteeteet ecacactgaa ggacceetgt gateacactg geeeeceeae
cggatgaccc aggataatcc atctccctgt ttgaaggtcg gctgattagc aaccttcatt
ccatctgcct ccttcattcc ccctggccat gtaatgggat tcacagcttc tggggattag
gacatggaca tcttgtggcg ggggcataat tctgtcgac
339
<210> 2074
<211> 85
<212> PRT
<213> Homo sapiens
<400> 2074
Met Lys Glu Ala Asp Gly Met Lys Val Ala Asn Gln Pro Thr Phe Lys
Gln Gly Asp Gly Leu Ser Trp Val Ile Arg Trp Gly Gln Cys Asp
His Arg Gly Pro Ser Val Trp Arg Arg Gln Glu Arg Glu Gln Arg
                            40
Asp Gly Met Arg Arg Thr Gln Ala Ser Ala Ala Gly Leu Lys Val Glu
                        55
Glu Gly Ala Thr Ser Gln Gly Thr Gln Ala Ala Ser Arg Ser Trp Lys
Gly Thr Glu Val Asp
                85
<210> 2075
<211> 481
<212> DNA
<213> Homo sapiens
```

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<400> 2075
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atcetgageg etectgeeca actgggeetg etgaggaaga teegeetetg geacgacage
cgtgggcctt ccccaggctg gttcatcagc cacgtgatgg tgaaggagct gcacacggga
240
cagggetggt tettecetge ceagtgetgg etgtetgeeg geaggeatga tggtegegtg
gagegggage teacetgtet geaaggggga eteggettet ggaagetttt etattgeaag
360
ttcacagagt acctggagga tttccatgtc tggctgtcgg tgtacagcag gccctcctcc
420
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480
t
481
<210> 2076
<211> 160
<212> PRT
<213> Homo sapiens
<400> 2076
Xaa Ala Arg Leu Thr Ser Lys Val Tyr Ile Val Leu Cys Gly Asp Asn
                                    10
Gly Leu Ser Glu Thr Lys Glu Leu Ser Cys Pro Glu Lys Ser Leu Phe
                                25
            20
Glu Arg Asn Ser Arg His Thr Phe Ile Leu Ser Ala Pro Ala Gln Leu
                                                45 .
                            40
Gly Leu Leu Arg Lys Ile Arg Leu Trp His Asp Ser Arg Gly Pro Ser
   50
                        55
Pro Gly Trp Phe Ile Ser His Val Met Val Lys Glu Leu His Thr Gly
                    70
                                        75
Gln Gly Trp Phe Phe Pro Ala Gln Cys Trp Leu Ser Ala Gly Arg His
                                    90
Asp Gly Arg Val Glu Arg Glu Leu Thr Cys Leu Gln Gly Gly Leu Gly
                                105
Phe Trp Lys Leu Phe Tyr Cys Lys Phe Thr Glu Tyr Leu Glu Asp Phe
       115
                            120
His Val Trp Leu Ser Val Tyr Ser Arg Pro Ser Ser Ser Arg Tyr Leu
                        135
                                            140
His Thr Pro Arg Pro Thr Val Ser Phe Ser Leu Leu Cys Val Tyr Ala
                                                            160
145
                    150
                                        155
<210> 2077
<211> 1410
<212> DNA
<213> Homo sapiens
<400> 2077
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ncagagtgtt ttgagctatc tggtatccca aatgatgtga atactttcag aaaccaatgg
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ctttggtcta cagtgagaga aaacagaggg agccaggaaa ggctccccgc tggcctctgg
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aagagccagt gaggccacct ggtccagttc accaggtttc ccagggaagc acaggcatct
ctgggtcccc gagcacagtg ccagggaaga cacccccaat ccccatctga acaggccgag
ggcagcatgg gaaaggctca gactgcaggt tcatcccgca ggatggtaag gacacgtgct
480
cctcctcgc aagagcaggc ttgtgcacag cccggcacag ggccagccag ggcggcccct
geggetgtge agegettace agggggagga gttcagecat caggacettt tecaagtgga
tetgetggte cageacagee actegeaget tgagggeege cagggtetge ageteetggg
tgctggagta gacaagcagc tgggnnggct ccatgcaggc tccgctctac ccccacagga
cggcgagget ccggggggec tnnccccaca gacatggtet tggtggetgt tecgccaccg
ctgcacgcag ctcctgcagc ctgtgcagac actggcccac catggcctgc agcccctcca
gcgtgagcag gcagcggtac tcctgcatcc agtccatggg ggctgctgag agctcctccc
900
teatgegeag teteageage gageaggeet teegeaggeg eeeegeetee geeteeacet
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acaggetega gttetgggaa getgetttee tgaatgeege aggeageege ageaggtgee
cetteteett gagtgtgaag gettetgggg eetgaggage ageggatggg geeatttget
ggtccctgag gcccgcccca ggcctggggg ttcgggctcc catcccaaca cgggtcccat
ccccactga cagcageegg egeteagggt ggeeettgge aggeaeegtg gtetggegga
ggcccttggt gggtctcgtg tctgaagcat ggccaccagc ttggcctggg gaatgcggtg
gggcggaggc tgtcgtgcca gaagaggtga
1410
<210> 2078
<211> 106
<212> PRT
<213> Homo sapiens
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<400> 2078
Gly His Leu Val Gln Phe Thr Arg Phe Pro Arg Glu Ala Gln Ala Ser
Leu Gly Pro Arg Ala Gln Cys Gln Gly Arg His Pro Gln Ser Pro Ser
                                 25
Glu Gln Ala Glu Gly Ser Met Gly Lys Ala Gln Thr Ala Gly Ser Ser
                             40
Arg Arg Met Val Arg Thr Arg Ala Pro Pro Ser Gln Glu Gln Ala Cys
                         55
Ala Gln Pro Gly Thr Gly Pro Ala Arg Ala Ala Pro Ala Ala Val Gln
                    70
Arg Leu Pro Gly Gly Gly Val Gln Pro Ser Gly Pro Phe Pro Ser Gly
                                     90
Ser Ala Gly Pro Ala Gln Pro Leu Ala Ala
            100
<210> 2079
<211> 565
<212> DNA
<213> Homo sapiens
<400> 2079
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gaagaggcac tggccaatcc tcgacaaatc gatctgaaca gagttgcctc acaggaatgc
eggegtgtge ttgacegett ggtggggtac etggtgacec aagagttgeg gegeetgatg
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gatgtaagtc ggggcaccac ttggtatgcc gagtggcaac cggtaccgga tttcgcaagc
aagcacttcc cctatgttca ggatagcaac ctggctcagc acgtcgccgg cactcgaaat
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tcatccactc ttcaacaggc cgcca
565
<210> 2080
<211> 188
<212> PRT
<213> Homo sapiens
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Ile Tyr Leu Ala Thr Asp Pro Asp Arg Glu Gly Glu Ser Ile Ser Trp
His Ile Gln Gln Val Leu Ala Val Lys Ser Tyr Lys Arg Ile Thr Phe
            20
                                25
Asn Glu Ile Thr Leu Lys Arg Val Glu Ala Leu Ala Asn Pro Arg
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40
Gln Ile Asp Leu Asn Arg Val Ala Ser Gln Glu Cys Arg Arg Val Leu
                        55
Asp Arg Leu Val Gly Tyr Leu Val Thr Gln Glu Leu Arg Arg Leu Met
                    70
Gly Lys Pro Thr Ser Ala Gly Arg Val Gln Ser Pro Ala Val Phe Leu
                                    90 '
                85
Val Val Leu Arg Glu Arg Glu Ile Arg Asn Phe Gln Val Ile Asn His
                                105
Phe Gly Val Arg Leu Phe Phe Ala Asp Val Ser Arg Gly Thr Thr Trp
                            120
Tyr Ala Glu Trp Gln Pro Val Pro Asp Phe Ala Ser Lys His Phe Pro
                                            140
                        135
Tyr Val Gln Asp Ser Asn Leu Ala Gln His Val Ala Gly Thr Arg Asn
                                        155
                    150
Val Val Val Glu Ser Cys Glu Asp Arg Lys Ala Glu Arg His Pro Pro
               165
                                    170
Ala Pro Phe Ile Ser Ser Thr Leu Gln Gln Ala Ala
                                185
           180
<210> 2081
<211> 319
<212> DNA
<213> Homo sapiens
<400> 2081
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aggttccatc atcaacgggt tccactagta attttggtgt gtggaactgc ctgtactgga
aaatcaacaa toqotacaca acttgotcag aggotcaatt tgoctaatgt tttgcagacg
gacatggtgt atgagetget geggacatea acagatgege caettaette agtteetgtg
tgggctcgcg attttaattc acctgaagag cttatcactg aattctgcag agaatgcaga
gttgtacgca agggtttgg
319
<210> 2082
<211> 106
<212> PRT
<213> Homo sapiens
<400> 2082
Lys Leu Met Glu Lys Arg Gly Tyr Gly Glu Glu Tyr Ile Asn Arg Tyr
                                    10
Lys Met Met Thr Arg Phe His His Gln Arg Val Pro Leu Val Ile Leu
                                25
Val Cys Gly Thr Ala Cys Thr Gly Lys Ser Thr Ile Ala Thr Gln Leu
Ala Gln Arg Leu Asn Leu Pro Asn Val Leu Gln Thr Asp Met Val Tyr
                        55
Glu Leu Leu Arg Thr Ser Thr Asp Ala Pro Lèu Thr Ser Val Pro Val
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75
                     70
Trp Ala Arg Asp Phe Asn Ser Pro Glu Glu Leu Ile Thr Glu Phe Cys
                85
                                    90
Arg Glu Cys Arg Val Val Arg Lys Gly Leu
            100
                                 105
<210> 2083
<211> 382
<212> DNA
<213> Homo sapiens
<400> 2083
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caccagccgg tcatttgtgc tgttgtccgc ttgtggctga aaaaatgtgc ggatgacagt
gagacgtcca actggatcgg cgctaatacc aaggaatgcc ccaaatgctg ttcgacgatt
gaaaagaatg gcggatgtaa tcatatgacg tgtcgcaagt gcaaatacga attttgttgg
atttgctcgg gcccatggtc ggagcacgga aacaactatt acaactgcaa tcggfacgat
gaaaaggcag gagatgaagg tn
382
<210> 2084
<211> 127
<212> PRT
<213> Homo sapiens
<400> 2084
Xaa Pro Asp Cys Asp Met Ala Val Glu Cys Ala Val Thr Arg Lys Gln
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Leu Tyr Thr Ile Ile Pro Thr Val Glu Cys Asn Cys Gly His Val Phe
Cys Phe Gly Cys Gly Leu Asp Gly His Gln Pro Val Ile Cys Ala Val
                            40
Val Arg Leu Trp Leu Lys Lys Cys Ala Asp Asp Ser Glu Thr Ser Asn
                        55
Trp Ile Gly Ala Asn Thr Lys Glu Cys Pro Lys Cys Cys Ser Thr Ile
                    70
                                        75
Glu Lys Asn Gly Gly Cys Asn His Met Thr Cys Arg Lys Cys Lys Tyr
                                    90
Glu Phe Cys Trp Ile Cys Ser Gly Pro Trp Ser Glu His Gly Asn Asn
                                105
Tyr Tyr Asn Cys Asn Arg Tyr Asp Glu Lys Ala Gly Asp Glu Gly
                            120
<210> 2085
<211> 478
<212> DNA
<213> Homo sapiens
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atccggcgtc gcgtggagga agccgccgaa ctcctcgacc tcaccgacta tctggaccgc
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gtccgcaccc gcgcccagat tgcggaactg cagcgccgcc tgggcaccac caccgtttat
gtcacccatg accaggtgga ggctatgacg atgggggatc gtgtggctgt tctctgtgcc
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478
<210> 2086
<211> 159
<212> PRT
<213> Homo sapiens
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Xaa Asp Pro Lys Asp Arg Asp Ile Ala Met Val Phe Gln Asn Tyr Ala
1
Leu Tyr Pro His Met Thr Val Ala Asp Asn Met Gly Phe Ala Leu Lys
                                25
           20
Leu Ala Lys Val Asp Lys Lys Glu Ile Arg Arg Arg Val Glu Glu Ala
Ala Glu Leu Leu Asp Leu Thr Asp Tyr Leu Asp Arg Lys Pro Lys Ala
                                            60
Leu Ser Gly Gly Gln Arg Gln Arg Val Ala Met Gly Arg Ala Ile Val
                    70
Arg Ser Pro Arg Val Phe Leu Met Asp Glu Pro Leu Ser Asn Leu Asp
                                    90
                85
Ala Arg Leu Arg Val Arg Thr Arg Ala Gln Ile Ala Glu Leu Gln Arg
                                105
Arg Leu Gly Thr Thr Thr Val Tyr Val Thr His Asp Gln Val Glu Ala
                                                125
                            120
        115
Met Thr Met Gly Asp Arg Val Ala Val Leu Cys Ala Gly Lys Leu Gln
                                            140
                        135
Gln Val Asp Thr Pro Arg Asn Leu Phe Asp His Pro Ala Asn Ala
                    150
145
<210> 2087
<211> 731
<212> DNA
<213> Homo sapiens
<400> 2087
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teqtaceqtg gtgattaqca gctagecgag gcgctagecg ccatataaga ttcccaaatt
aaaagaaaaa gcattgcgtc ggccaagaat tgctgtcgct gctgcaacgg ctactgcgct
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cgtgatgcag tcatcaacga tgcaaagctg cgtgccgcga ttgccggtgc gttggttaag
360
getggattta gtteegeega egeggtgget etagegeege gtattgeeag agaaatggea
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540
gecactetag etgegacaat catteceaac gegetgeatt cageggeatt caaggatgeg
600
gtggtcgcaa atcttgtcgc cgccggtctg acaagaagtt ggcaaaggct acggctgtcg
ccattgccgc aactgcgctc aatcccgctc tcgggccgat cgcaaagact gaggccatta
720
aggctgagat c
731
<210> 2088
<211> 105
<212> PRT
<213> Homo sapiens
<400> 2088
Met Ala Lys Glu Gly Val Leu Leu Ile Asn His His Lys Leu Lys Ala
                                    10
Leu Ile Gly Ala Gln Val Gly Leu Leu Thr Asp Ala Lys Ile Gln Arg
Ala Ala Ala Ala Val Asp Leu Gly Ile Lys Ala Thr Leu Ala Ala Thr
                            40
Ile Ile Pro Asn Ala Leu His Ser Ala Ala Phe Lys Asp Ala Val Val
Ala Asn Leu Val Ala Ala Gly Leu Thr Arg Ser Trp Gln Arg Leu Arg
Leu Ser Pro Leu Pro Gln Leu Arg Ser Ile Pro Leu Ser Gly Arg Ser
Gln Arg Leu Arg Pro Leu Arg Leu Arg
            100
                                105
<210> 2089
<211> 315
<212> DNA
<213> Homo sapiens
<400> 2089
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ctcggggaat tcgacatcga tctgttgctg gaccatcgcg attcccgtca gcccatcatc
ttcgacaccg accacttcga ggggtacgag cgcccccgcc tcgtgctgca cgaagtcacc
180
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accgattcga tcccg
315
<210> 2090
<211> 105
<212> PRT
<213> Homo sapiens
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Thr Gly Val Asp Gln Ala Gln Leu Arg Asp Ala Met Phe Ser Tyr Leu
Pro His His Lys Leu Gly Glu Phe Asp Ile Asp Leu Leu Leu Asp His
                                25
Arg Asp Ser Arg Gln Pro Ile Ile Phe Asp Thr Asp His Phe Glu Gly
                            40
Tyr Glu Arg Pro Arg Leu Val Leu His Glu Val Thr Asp Gln Leu Gly
                        55
Gln Ala Phe Leu Val Leu Glu Gly Pro Glu Pro Ala Leu Gly Trp Glu
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Ser Leu Val Ala Ser Leu Thr Ser Leu Val Asp Ser Met Gly Ile Arg
Leu Thr Gly Ile Thr Asp Ser Ile Pro
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<211> 322
<212> DNA
<213> Homo sapiens
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tettteetet gtgtgtetet ceatttetgt etetetteet etgtetetet ceatttetgt
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322
<210> 2092
<211> 107
<212> PRT
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<213> Homo sapiens <400> 2092 Thr Leu Val His Cys Leu Cys Leu Cys Val Phe Leu Ser Val Ser Leu 10 Cys Leu Cys Leu Cys Val Pro Val Gln Phe Cys Xaa Cys Val Cys Ala 25 His Leu Ser Leu Cys Leu Cys Xaa Ser Leu Cys Leu Phe Cys Leu Cys Leu Ser Leu Cys Leu Cys Pro Phe Trp Ser Leu Leu Ser Phe Leu Cys Val Ser Leu His Phe Cys Leu Ser Ser Ser Val Ser Leu His Phe Cys 70 75 Leu Cys Ser Phe Ser Leu Cys Val Ser Leu Leu Ser Leu Cys Phe Ser Ala Cys Leu Cys Pro Phe Leu Ser Leu His Ala 100 <210> 2093 <211> 324 <212> DNA <213> Homo sapiens <400> 2093 geeggegtea tgcaaacgat caaggtggeg caatttegee tetgecatag tegaaaaatg tttgtggtgg cctacccgcg agagacccag gagatggtgc tcgatgcgca taaccgcgcc tttgegttet ttggeggegt acegeagegg gttatetaeg acaacettaa aacegeagtg gatgcgatct tggtcggcaa ggatcgaatc ttcaaccggc gcttcctggc gttggctaat 240 cattacctgt ttgaacctgt agcctgtacg cctgctgctg gctgggagaa gggccaagtt gagaatcaag ttcgcaacat acgc 324 <210> 2094 <211> 108 <212> PRT <213> Homo sapiens <400> 2094 Ala Gly Val Met Gln Thr Ile Lys Val Ala Gln Phe Arg Leu Cys His Ser Arg Lys Met Phe Val Val Ala Tyr Pro Arg Glu Thr Gln Glu Met 25 Val Leu Asp Ala His Asn Arg Ala Phe Ala Phe Phe Gly Gly Val Pro 40 Gln Arg Val Ile Tyr Asp Asn Leu Lys Thr Ala Val Asp Ala Ile Leu Val Gly Lys Asp Arg Ile Phe Asn Arg Arg Phe Leu Ala Leu Ala Asn 75 70

His Tyr Leu Phe Glu Pro Val Ala Cys Thr Pro Ala Ala Gly Trp Glu

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95
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Lys Gly Gln Val Glu Asn Gln Val Arg Asn Ile Arg
                                 105
<210> 2095
<211> 402
<212> DNA
<213> Homo sapiens
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402
<210> 2096
<211> 134
<212> PRT
<213> Homo sapiens
<400> 2096
Pro Val Thr Asp Gln Glu Glu Ala Asp Asn Met Ile Ala Ser Phe Asp
                                     10
Thr Tyr Val Arg Thr Leu Pro Pro Ala Ala Asn Leu Leu Leu Lys Gln
                                 25
Phe His Ile Val Asp Val Ala Arg Arg Val Val Gly Val Gly Ser Val
                             40
Gly Thr His Ser Leu Val Leu Leu Leu Ser Gly Pro Asn Asp Glu Pro
                                             60
                        55
Leu Val Leu Gln Val Lys Glu Ala Leu Pro Ser Val Leu Thr Thr His
                                         75
                    70
Gly Lys Leu Pro Asp Ala Phe Ser Glu Leu Ser Ala Gly Asp Ser Ser
                                     90
Gly Leu Leu Pro Asp Asn Leu Asp Lys His Ile Lys Ala Gly Asn Gly
                                 105
Tyr Arg Val Val Ala Cys Gln Gln Ile Leu Gln Ala His Ser Asp Pro
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                             120
Leu Leu Gly Trp Thr Arg
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<210> 2097
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<212> DNA
<213> Homo sapiens
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120
gccatgagca aggaggaggc cgaccaggta ctgggcgtgc agctggggct gtctgtccgc
caccequete cacqueteac ttcaggetec eteccageca ggegtgggee tggeceteae
240
tgtcgctgct ccacatgctg tcactcgtct cctccccagt cctgcctcat cctcacnccg
300
ecqteectet gegtgteact etetgeetgt ceteactggt teagggaeec ecageetete
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641
<210> 2098
<211> 213
<212> PRT
<213> Homo sapiens
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Xaa Phe Leu Thr Arg Pro Pro Ala Ser Ser Ala Ala Val Gly Ser Gly
                                    10
1
Pro Pro Pro Glu Ala Glu Gln Ala Trp Pro Gln Ser Ser Gly Glu Glu
Glu Leu Gln Leu Gln Leu Ala Leu Ala Met Ser Lys Glu Glu Ala Asp
Gln Val Leu Gly Val Gln Leu Gly Leu Ser Val Arg His Pro Pro Pro
Arg Leu Thr Ser Gly Ser Leu Pro Ala Arg Arg Gly Pro Gly Pro His
                    70
Cys Arg Cys Ser Thr Cys Cys His Ser Ser Pro Pro Gln Ser Cys Leu
                85
                                    90
Ile Leu Thr Pro Pro Ser Leu Cys Val Ser Leu Ser Ala Cys Pro His
                                105
                                                    110
Trp Phe Arg Asp Pro Gln Pro Leu Phe Ile Arg Leu Tyr Leu Thr Leu
                                                125
                            120
        115
'Ala Leu Pro Leu Thr Leu Pro Leu Ala Pro Pro Val Met Pro Leu Thr
                        135
                                            140
Leu Ser Leu Pro Gln Pro Pro Ser Cys Gly Pro Glu Asp Asp Ala Gln
                    150
                                        155
Leu Gln Leu Ala Leu Ser Leu Ser Arg Glu Glu His Asp Lys Val Arg
                165
                                    170
Ala Ala Ser Leu Ser Leu Pro Leu Pro Gly Ala Pro Leu Arg Pro Ala
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185
Pro Ser Pro Leu Pro Lys Ser Pro Pro Thr Ile Leu Leu Gly Pro Lys
                                                 205
        195
                            200
Pro Thr Gly Ser Arg
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<210> 2099
<211> 347
<212> DNA
<213> Homo sapiens
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347
<210> 2100
<211> 106
<212> PRT
<213> Homo sapiens
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Met Asp Ser Thr Cys Pro Gln Gly Cys Ser Val Glu Ala Val Pro Arg
1
Ala Ala Val Pro Met Arg Val Pro Cys Pro Leu Pro Asp Ala Asp Ser
                                25
Thr Cys Pro Arg Gly Ala Gln Trp Arg Gln Cys Pro Gly Leu Leu Cys
                            40
Pro Arg Val Cys Pro Gln Thr Ser Leu Pro Arg His Leu Leu His Asp
                                            60
Pro Gly Gly Gly Arg Gln Trp Gln Tyr Ser Val Gln Val Ser Ser Glu
                                        75
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Val Ala Gly Ala Trp Leu Arg Pro Cys Leu Thr Pro Thr Ala Ser Ala
                85
Ser Ser Pro Leu Ala His Pro Thr Trp Pro
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<210> 2101
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180
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<212> PRT
<213> Homo sapiens
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Met Gly Arg Asp Glu Leu Pro Leu Pro Thr Ala Thr Ser Leu Ala Leu
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Cys Gly Leu Asn His Asp Lys Asn Glu Leu Leu Ala Ser Leu Leu Ile
His Leu Asp Glu Leu Leu Thr Val Trp Leu Glu Thr Gly Thr Val Arg
                            40
Asp Gln Tyr Val Ala Arg Cys Asp Thr Ile Gly Thr Pro Val Arg Leu
                                            60
                        55
Thr Phe Asp Pro Glu Ile Val Gly Gly Glu Gly Ala Ile Glu Gly
                                        75
Ile Gly Val Asp Val Asp Val Asp Gly Ala Ile Val Val Glu Thr Ser
                                    90
Asp Gly Arg Arg Ser Phe Asn Ala Ala Asp Val His His Leu Arg Thr
            100
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Arg
<210> 2103
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<212> DNA
<213> Homo sapiens
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240
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geatgtgatg atctegatga ggttetgagg eteageegea teeteactet eeaegetegt
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459
<210> 2104
<211> 153
<212> PRT
<213> Homo sapiens
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His Thr Ile Ala Met Ile Met Ala Ala Val Arg Gln Ile Pro Ala His
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His Glu Leu Leu Ala Ser Gly Val Trp Glu Gly Asp Ala Tyr Arg Tyr
Asp Gln Val Gly Met Glu Ile Lys Gly Asn Asp Val Gly Ile Val Gly
                                             60
                        55
Cys Gly Ala Val Gly Cys Arg Val Ala Ala Val Met Ala Ala Met Gly
                    70
                                        75
Ala Thr Val Arg Val Phe Asp Pro Trp Ala Thr Pro Asp Ser Phe Pro
                                    90
Ala Gly Val Met Ala Cys Asp Asp Leu Asp Glu Val Leu Arg Leu Ser
                                105
                                                     110
Arg Ile Leu Thr Leu His Ala Arg Ala Asn Glu Asp Asn Arg His Met
                            120
                                                125
Ile Gly Val Glu Gln Leu Ala Glu Met Pro Asp Gly Ser Val Leu Val
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                        135
Asn Cys Ala Arg Gly Ser Leu Val Asp
                    150
145
<210> 2105
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<212> DNA
<213> Homo sapiens
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300
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2760	ctctaaggtg				
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	ctgagggttc	tctgtcactg	ttactggcag	aagaaacaca	gcaggtgttt
	ggttttacgt	ttctgttcag	aatacccttt	tatcaactcc	ttagttttat
	gggaaaaaat	tagtaacaaa	attcccagca	tcagtatgaa	catattttat
3480 ttgcctaaac 3540	aagctttgtg	aaagttaagc	gttcaaacac	cagtgtcagt	tacctggaag
2240					

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gctactaagg taaataagca aagcaggcca gttgtcagga aagcagagat tgtgcctggt
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gtgtatttca tttgtccttt gtatttatct aaaagggttg atatgatttt atatcttgct
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Gln Ser Glu Leu Thr Asn Met Asp Leu Ala Ala Leu Phe Ser Asp Thr
                            40
Pro Ala Asn Ala Ser Gly Ser Ala Gly Gly Ser Asp Glu Ala Leu Asn
                        55
Ser Gly Ile Leu Thr Ile Asp Val Thr Ser Val Ser Ser Ser Leu Gly
                                        75
Gly Asn Leu Pro Ala Asn Asn Ser Ser Leu Gly Pro Met Glu Pro Leu
                                    90
                85
Val Leu Val Ala His Ser Asp Ile Pro Pro Ser Leu Asp Ser Pro Leu
                                105
            100
Val Leu Gly Thr Ala Ala Thr Val Leu Gln Gln Gly Ser Phe Ser Val
                            120
Asp Asp Val Gln Thr Val Ser Ala Gly Ala Leu Gly Cys Leu Val Ala
                                            140
                       135
Leu Pro Met Lys Asn Leu Ser Asp Asp Pro Leu Ala Leu Thr Ser Asn
                                        155
                    150
Ser Asn Leu Ala Ala His Ile Thr Thr Pro Thr Ser Ser Ser Thr Pro
                                    170
                165
Arg Glu Asn Ala Ser Val Pro Glu Leu Leu Ala Pro Ile Lys Val Glu
                                                    190
                                185
           180
Pro Asp Ser Pro Ser Arg Pro Gly Ala Val Gly Gln Gln Glu Gly Ser
                                                205
                            200
His Gly Leu Pro Gln Ser Thr Leu Pro Ser Pro Ala Glu Gln His Gly
                        215
Ala Gln Asp Thr Glu Leu Ser Ala Gly Thr Gly Asn Phe Tyr Leu Val
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235

230

225

240

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geetcaggee tggtgtetga aaacaccccc agacetgatg acageagage tategeteca
geotecetee aaateaceag ttettgttet ggtgaaceee tggacetgga ttecaaggat
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300
ccncn
305
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Leu Val Pro Asp Leu Asn Asp Ser Leu Ser Pro Val Ser Gly Glu Ala
           20
                              25
Ser Gly Leu Val Ser Glu Asn Thr Pro Arg Pro Asp Asp Ser Arg Ala
                          40
Ile Ala Pro Ala Ser Leu Gln Ile Thr Ser Ser Cys Ser Gly Glu Pro
                      55
                                          60
Leu Asp Leu Asp Ser Lys Asp Val Ser Arg Pro Asp Ser Gln Gly Arg
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Leu Cys Pro Ala Ser Asn Pro Ile Leu Ala Xaa Pro
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taccaagegt ccagtgagge tececeageg aaaeggagga acgaaaette attteteeca
gccaagaaaa ctagtgttaa agaaactcag aggactttta aggggaacgc acaaaaaatg
240
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gtaaagcagg tgcaagaaaa agtgtttact tcagctgctt ttcatgagct gggcctccac
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aagcaaagta ttootgtgtt gotggaaggo agagatgoto togtgagato ccagaogggo
tcaggtaaaa ttcttgccta ttgcatccct gtggtccagt cccttcaagc aatggagtca
aaaatacagc gcagtgatgg cccctatgcc ctggtgctcg tgccaacgag agaggtaagc
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Gln Ala Lys Ala Thr Lys Arg Lys Tyr Gln Ala Ser Ser Glu Ala Pro
Pro Ala Lys Arg Arg Asn Glu Thr Ser Phe Leu Pro Ala Lys Lys Thr
                        55
Ser Val Lys Glu Thr Gln Arg Thr Phe Lys Gly Asn Ala Gln Lys Met
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                    70
Phe Ser Pro Lys Lys His Ser Val Ser Thr Ser Asp Arg Asn Gln Glu
                                    90
                85
Glu Arg Gln Cys Ile Lys Thr Ser Ser Leu Phe Lys Asn Asn Pro Asp
                                105
            100
Ile Pro Glu Leu His Arg Pro Val Val Lys Gln Val Gln Glu Lys Val
                            120
Phe Thr Ser Ala Ala Phe His Glu Leu Gly Leu His Pro His Leu Ile
                        135
                                            140
Ser Thr Ile Asn Thr Val Leu Lys Met Ser Ser Met Thr Ser Val Gln
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                    150
Lys Gln Ser Ile Pro Val Leu Leu Glu Gly Arg Asp Ala Leu Val Arg
                                    170
                165
Ser Gln Thr Gly Ser Gly Lys Ile Leu Ala Tyr Cys Ile Pro Val Val
                                185
Gln Ser Leu Gln Ala Met Glu Ser Lys Ile Gln Arg Ser Asp Gly Pro
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Tyr Ala Leu Val Leu Val Pro Thr Arg Glu Val Ser Arg Leu Pro Phe
                                            220
                        215
Gly Thr Ser Phe Lys His Met Leu Ser
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225
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geogagetgg tggeeetgge tgagetgtte atgccaatca agetggtgee gaageaattt
gaaggeetgg ttgagegtgt gegeagtget ettgagegte tgegtgeeca agagegegea
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<211> 113
<212> PRT
<213> Homo sapiens
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Ala Val Ser Asp Gln Met Glu Ile Thr Arg Lys Ala Leu Lys Lys His
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Leu Phe Met Pro Ile Lys Leu Val Pro Lys Gln Phe Glu Gly Leu Val
                        55
Glu Arg Val Arg Ser Ala Leu Glu Arg Leu Arg Ala Gln Glu Arg Ala
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                                         75
Ile Met Gln Leu Cys Val Arg Asp Ala Arg Met Pro Arg Ala Asp Phe
Leu Arg Gln Phe Pro Gly Asn Glu Val Asp Glu Ser Trp Thr Asp Ala
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Leu
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aaagggaagt tgacattaga tagcagtttt aacatcgcca gcccagcttc ccaggcctgg
180
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300		tgagacattc			
gageetgeee 360					
420		tatcatggag			
agcaaaaccc 480	cagggccgag	gtttgatatc	aatgatacta	tcagggcagt	ggtgttagag
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600		tgagctgagt			
660		ctatgacctc			
720		tgttgcattt			
780		catttcaatt			
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900		cgtccattat			
960		cttctctctg			
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1080		gctcatcatg			
1140		ccttggacca			
1200		cttttcccat			
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1380		ccacatctgc			
1440		agcttacaac			
1500		geceetett			
1560		ccccgatgcc			
1620		cttgtgccac			
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Leu His Met Pro Ile Thr Val Ile Trp Gly Val Ser Pro Glu Asp Asn
Gly Asn Pro Leu Asn Pro Lys Ser Lys Gly Lys Leu Thr Leu Asp Ser
Ser Phe Asn Ile Ala Ser Pro Ala Ser Gln Ala Trp Ile Leu His Phe
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Cys Gln Lys Leu Arg Asn Gln Thr Phe Phe Tyr Gln Thr Asp Glu Gln
                   70
                                       75
Asp Phe Thr Ser Cys Phe Ile Glu Thr Phe Lys Gln Trp Met Glu Asn
                                   90
Gln Asp Cys Asp Glu Pro Ala Leu Tyr Pro Cys Cys Ser His Trp Ser
                               105
Phe Pro Tyr Lys Gln Glu Ile Phe Glu Leu Cys Ile Lys Arg Ala Ile
                           120
Met Glu Leu Glu Arg Ser Thr Gly Tyr His Leu Asp Ser Lys Thr Pro
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                       135
Gly Pro Arg Phe Asp Ile Asn Asp Thr Ile Arg Ala Val Val Leu Glu
                                       155
                   150
145
Phe Gln Ser Thr Tyr Leu Phe Thr Leu Ala Tyr Glu Lys Met His Gln
                                   170
               165
Phe Tyr Lys Glu Val Asp Ser Trp Ile Ser Ser Glu Leu Ser Ser Ala
                               185
Pro Glu Gly Leu Ser Asn Gly Trp Phe Val Ser Asn Leu Glu Phe Tyr
                           200
Asp Leu Gln Asp Ser Leu Ser Asp Gly Thr Leu Ile Ala Met Gly Leu
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                       215
Ser Val Ala Val Ala Phe Ser Val Met Leu Lèu Thr Thr Trp Asn Ile
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225					230					235					240
Ile	Ile	Ser	Leu	Tyr	Aļa	Ile	Ile	Ser	Ile	Ala	Gly	Thr	Ile	Phe	Val
•				245					250					255	
Thr	Val	Gly	Ser	Leu	Val	Leu	Leu		Trp	Glu	Leu	Asn		Leu	Glu
			260			_	_	265					270		
Ser	Val	Thr	Ile	Ser	Val	Ala		Gly	Leu	Ser	Val		Phe	Ala	Val
		275					280		_	_	_	285	_	•	_,
His	Tyr	Gly	Val	Ala	Tyr		Leu	Ala	Pro	Asp		Asp	Arg	Glu	Gly
	290	_	_			295	_	•		_	300				
_	Val	Ile	Phe	Ser		Ser	Arg	Val	GIY		Ala	Met	Ala	Met	
305	_			_,	310		 1			315	-1 -	D	c	mb	320
Ala	Leu	Thr	Inr		vaı	Ата	GIY	Ата	330	met	TIE	PIO	Ser	335	vai
T 011	Ala	Т	ጥጐ~	325	Tan	G) w	The	Dha		Met	T.011	Tla	Met		Tle
Den	ALA	ıyı	340	GIII	Deu	GLY	1111	345	1100		20-12		350	-70	
Sar	Trp	λla		Δla	Thr	Dhe	Phe		Gln	Cvs	Met	Cvs		Cvs	Leu
261	115	355	FIIC	A.L.	****	1 110	360			-,-		365		-,-	
Glv	Pro		Glv	Thr	Cvs	Glv		Ile	Pro	Leu	Pro		Lys	Leu	Gln
027	370		0-,		-7-	375					380		•		
Cvs	Ser	Ala	Phe	Ser	His	Ala	Leu	Ser	Thr	Ser	Pro	Ser	Asp	Lys	Gly
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Gln	Ser	Lys	Thr	His	Thr	Ile	Asn	Ala	Tyr	His	Leu	Asp	Pro	Arg	Gly
				405					410					415	
Pro	Lys	Ser	Glu	Leu	Glu	His	Glu	Phe	Tyr	Glu	Leu	Glu	Pro	Leu	Ala
			420					425					430		
Ser	His	Ser	Cys	Thr	Ala	Pro	Glu	Lys	Thr	Thr	Tyr	Glu	Glu	Thr	His
		435					440					445	_		
Ile	Cys	Ser	Glu	Phe	Phe		Ser	Gln	Ala	Lys		Leu	Gly	Met	Pro
	450										460				
		_	_		_	455		_	_	_				_	_
	His	Ala	Ala	Tyr			Glu	Leu	Ser			Thr	Glu	Ser	
465	His				470	Ser				475	Ser				480
465				Leu	470	Ser			Leu	475	Ser			Val	480
465 Thr	His Gly	Ser	Ala	Leu 485	470 Leu	Ser Gln	Pro	Pro	Leu 490	475 Glu	Ser Gln	His	Thr	Val 495	480 Cys
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465 Thr His	His Gly Phe Leu	Ser Phe Asn 515	Ala Ser 500 Tyr	Leu 485 Leu Gly	470 Leu Asn Pro	Ser Gln Gln His	Pro Arg Ser 520	Pro Cys 505 Cys	Leu 490 Ser Gln	475 Glu Cys Gln	Ser Gln Pro Met	His Asp Gly 525	Thr Ala 510 Asp	Val 495 Tyr Cys	480 Cys Lys Leu
465 Thr His	His Gly Phe Leu His	Ser Phe Asn 515	Ala Ser 500 Tyr	Leu 485 Leu Gly	470 Leu Asn Pro	Ser Gln Gln His	Pro Arg Ser 520	Pro Cys 505 Cys	Leu 490 Ser Gln	475 Glu Cys Gln	Ser Gln Pro Met	His Asp Gly 525	Thr Ala 510 Asp	Val 495 Tyr Cys	480 Cys Lys Leu
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465 Thr His His Cys Gly 545	His Gly Phe Leu His 530	Ser Phe Asn 515 Gln Ala	Ala Ser 500 Tyr Cys	Leu 485 Leu Gly Ser	Arn Pro Pro Lys 550	Ser Gln Gln His Thr 535 Ala	Pro Arg Ser 520 Thr	Pro Cys 505 Cys Ser His	Leu 490 Ser Gln Ser	475 Glu Cys Gln Phe Ala 555	Ser Gln Pro Met Val 540 Val	His Asp Gly 525 Gln Glu	Thr Ala 510 Asp Ile Gly	Val 495 Tyr Cys Gln Phe	480 Cys Lys Leu Asn Val 560
465 Thr His Cys Gly 545 His	His Gly Phe Leu His 530 Val	Ser Phe Asn 515 Gln Ala Ile	Ala Ser 500 Tyr Cys Pro	Leu 485 Leu Gly Ser Leu His 565	AFRO Pro Lys 550 Ile	Ser Gln Gln His Thr 535 Ala	Pro Arg Ser 520 Thr Thr	Pro Cys 505 Cys Ser His	Leu 490 Ser Gln Ser Gln Pro 570	475 Glu Cys Gln Phe Ala 555 Cys	Ser Gln Pro Met Val 540 Val Leu	His Asp Gly 525 Gln Glu	Thr Ala 510 Asp Ile Gly Gly	Val 495 Tyr Cys Gln Phe Arg 575	480 Cys Lys Leu Asn Val 560 Val
His His Cys Gly 545 His	His Gly Phe Leu His 530 Val Pro	Ser Phe Asn 515 Gln Ala Ile Ala	Ala Ser 500 Tyr Cys Pro Thr Gly 580	Leu 485 Leu Gly Ser Leu His 565 Met	A70 Leu Asn Pro Pro Lys 550 Ile Gln	Ser Gln Gln His Thr 535 Ala His Asn	Pro Arg Ser 520 Thr Thr His	Pro Cys 505 Cys Ser His Cys Leu 585	Leu 490 Ser Gln Ser Gln Pro 570 Pro	475 Glu Cys Gln Phe Ala 555 Cys	Ser Gln Pro Met Val 540 Val Leu Asn	His Asp Gly 525 Gln Glu Gln Phe	Thr Ala 510 Asp Ile Gly Gly Phe 590	Val 495 Tyr Cys Gln Phe Arg 575 Leu	480 Cys Lys Leu Asn Val 560 Val
His His Cys Gly 545 His	His Gly Phe Leu His 530 Val	Ser Phe Asn 515 Gln Ala Ile Ala	Ala Ser 500 Tyr Cys Pro Thr Gly 580	Leu 485 Leu Gly Ser Leu His 565 Met	A70 Leu Asn Pro Pro Lys 550 Ile Gln	Ser Gln Gln His Thr 535 Ala His Asn	Pro Arg Ser 520 Thr Thr His	Pro Cys 505 Cys Ser His Cys Leu 585	Leu 490 Ser Gln Ser Gln Pro 570 Pro	475 Glu Cys Gln Phe Ala 555 Cys	Ser Gln Pro Met Val 540 Val Leu Asn	His Asp Gly 525 Gln Glu Gln Phe	Thr Ala 510 Asp Ile Gly Gly Phe 590	Val 495 Tyr Cys Gln Phe Arg 575 Leu	480 Cys Lys Leu Asn Val 560 Val
His His Cys Gly 545 His Lys	His Gly Phe Leu His 530 Val Pro Pro	Ser Phe Asn 515 Gln Ala Ile Ala Gln 595	Ala Ser 500 Tyr Cys Pro Thr Gly 580 His	Leu 485 Leu Gly Ser Leu His 565 Met	A70 Leu Asn Pro Pro Lys 550 Ile Gln	Ser Gln Gln His Thr 535 Ala His Asn	Pro Arg Ser 520 Thr Thr His Ser Gln 600	Pro Cys 505 Cys Ser His Cys Leu 585 Glu	Leu 490 Ser Gln Ser Gln Pro 570 Pro	475 Glu Cys Gln Phe Ala 555 Cys Arg	Ser Gln Pro Met Val 540 Val Leu Asn Gly	His Asp Gly 525 Gln Glu Gln Phe Lys 605	Thr Ala 510 Asp Ile Gly Gly Phe 590 Thr	Val 495 Tyr Cys Gln Phe Arg 575 Leu Asn	480 Cys Lys Leu Asn Val 560 Val His
His His Cys Gly 545 His Lys	His Gly Phe Leu His 530 Val Pro	Ser Phe Asn 515 Gln Ala Ile Ala Gln 595	Ala Ser 500 Tyr Cys Pro Thr Gly 580 His	Leu 485 Leu Gly Ser Leu His 565 Met	A70 Leu Asn Pro Pro Lys 550 Ile Gln	Ser Gln Gln His Thr 535 Ala His Asn Ala Ile	Pro Arg Ser 520 Thr Thr His Ser Gln 600	Pro Cys 505 Cys Ser His Cys Leu 585 Glu	Leu 490 Ser Gln Ser Gln Pro 570 Pro	475 Glu Cys Gln Phe Ala 555 Cys Arg	Ser Gln Pro Met Val 540 Val Leu Asn Gly Pro	His Asp Gly 525 Gln Glu Gln Phe Lys 605	Thr Ala 510 Asp Ile Gly Gly Phe 590 Thr	Val 495 Tyr Cys Gln Phe Arg 575 Leu Asn	480 Cys Lys Leu Asn Val 560 Val His
His His Cys Gly 545 His Lys Pro	His Gly Phe Leu His 530 Val Pro Pro Val Ser 610	Ser Phe Asn 515 Gln Ala Ile Ala Gln 595 Leu	Ala Ser 500 Tyr Cys Pro Thr Gly 580 His	Leu 485 Leu Gly Ser Leu His 565 Met Ile	A70 Leu Asn Pro Lys 550 Ile Gln Gln Ser	Ser Gln Gln His Thr 535 Ala His Asn Ala Ile 615	Pro Arg Ser 520 Thr Thr His Ser Gln 600 Glu	Pro Cys 505 Cys Ser His Cys Leu 585 Glu	Leu 490 Ser Gln Ser Gln Pro 570 Pro Lys	475 Glu Cys Gln Phe Ala 555 Cys Arg Ile Leu	Ser Gln Pro Met Val 540 Val Leu Asn Gly Pro 620	His Asp Gly 525 Gln Glu Gln Phe Lys 605 Lys	Thr Ala 510 Asp Ile Gly Gly Phe 590 Thr	Val 495 Tyr Cys Gln Phe Arg 575 Leu Asn	480 Cys Lys Leu Asn Val 560 Val His Val Glu
His His Cys Gly 545 His Lys Pro His	His Gly Phe Leu His 530 Val Pro Pro Val Ser	Ser Phe Asn 515 Gln Ala Ile Ala Gln 595 Leu	Ala Ser 500 Tyr Cys Pro Thr Gly 580 His	Leu 485 Leu Gly Ser Leu His 565 Met Ile	A70 Leu Asn Pro Pro Lys 550 Ile Gln Gln Ser Cys	Ser Gln Gln His Thr 535 Ala His Asn Ala Ile 615	Pro Arg Ser 520 Thr Thr His Ser Gln 600 Glu	Pro Cys 505 Cys Ser His Cys Leu 585 Glu	Leu 490 Ser Gln Ser Gln Pro 570 Pro Lys	475 Glu Cys Gln Phe Ala 555 Cys Arg Ile Leu Ser	Ser Gln Pro Met Val 540 Val Leu Asn Gly Pro 620	His Asp Gly 525 Gln Glu Gln Phe Lys 605 Lys	Thr Ala 510 Asp Ile Gly Gly Phe 590 Thr	Val 495 Tyr Cys Gln Phe Arg 575 Leu Asn	480 Cys Lys Leu Asn Val 560 Val His Val Glu Cys
His His Cys Gly 545 His Lys Pro His Pro 625	His Gly Phe Leu His 530 Val Pro Pro Val Ser 610 Ser	Ser Phe Asn 515 Gln Ala Ile Ala Gln 595 Leu Ser	Ala Ser 500 Tyr Cys Pro Thr Gly 580 His Gln Phe	Leu 485 Leu Gly Ser Leu His 565 Met Ile Arg	A70 Leu Asn Pro Pro Lys 550 Ile Gln Gln Ser Cys 630	Ser Gln Gln His Thr 535 Ala His Asn Ala Ile 615 Arg	Pro Arg Ser 520 Thr Thr His Ser Gln 600 Glu Ser	Pro Cys 505 Cys Ser His Cys Leu 585 Glu Glu Thr	Leu 490 Ser Gln Ser Gln Pro 570 Pro Lys His	475 Glu Cys Gln Phe Ala 555 Cys Arg Ile Leu Ser 635	Ser Gln Pro Met Val 540 Val Leu Asn Gly Pro 620 Leu	His Asp Gly 525 Gln Glu Gln Phe Lys 605 Lys Leu	Thr Ala 510 Asp Ile Gly Gly Phe 590 Thr Met Lys	Val 495 Tyr Cys Gln Phe Arg 575 Leu Asn Ala Thr	480 Cys Lys Leu Asn Val 560 Val His Val Glu Cys 640
His His Cys Gly 545 His Lys Pro His Pro 625	His Gly Phe Leu His 530 Val Pro Pro Val Ser 610	Ser Phe Asn 515 Gln Ala Ile Ala Gln 595 Leu Ser	Ala Ser 500 Tyr Cys Pro Thr Gly 580 His Gln Phe	Leu 485 Leu Gly Ser Leu His 565 Met Ile Arg Val Asn	A70 Leu Asn Pro Pro Lys 550 Ile Gln Gln Ser Cys 630	Ser Gln Gln His Thr 535 Ala His Asn Ala Ile 615 Arg	Pro Arg Ser 520 Thr Thr His Ser Gln 600 Glu Ser	Pro Cys 505 Cys Ser His Cys Leu 585 Glu Glu Thr	Leu 490 Ser Gln Ser Gln Pro 570 Pro Lys His Gly Leu	475 Glu Cys Gln Phe Ala 555 Cys Arg Ile Leu Ser 635	Ser Gln Pro Met Val 540 Val Leu Asn Gly Pro 620 Leu	His Asp Gly 525 Gln Glu Gln Phe Lys 605 Lys Leu	Thr Ala 510 Asp Ile Gly Gly Phe 590 Thr Met Lys	Val 495 Tyr Cys Gln Phe Arg 575 Leu Asn Ala Thr	480 Cys Lys Leu Asn Val 560 Val His Val Glu Cys 640
His His Cys Gly 545 His Lys Pro His Pro 625 Cys	His Gly Phe Leu His 530 Val Pro Pro Val Ser 610 Ser	Ser Phe Asn 515 Gln Ala Ile Ala Gln 595 Leu Ser	Ala Ser 500 Tyr Cys Pro Thr Gly 580 His Gln Phe	Leu 485 Leu Gly Ser Leu His 565 Met Ile Arg Val Asn 645	A70 Leu Asn Pro Pro Lys 550 Ile Gln Gln Ser Cys 630 Lys	Ser Gln Gln His Thr 535 Ala His Asn Ala Ile 615 Arg Gln	Pro Arg Ser 520 Thr Thr His Ser Gln 600 Glu Ser Arg	Pro Cys 505 Cys Ser His Cys Leu 585 Glu Glu Thr	Leu 490 Ser Gln Ser Gln Pro 570 Pro Lys His Gly Leu 650	475 Glu Cys Gln Phe Ala 555 Cys Arg Ile Leu Ser 635 Cys	Ser Gln Pro Met Val 540 Val Leu Asn Gly Pro 620 Leu Lys	His Asp Gly 525 Gln Glu Gln Phe Lys 605 Lys Leu Asn	Thr Ala 510 Asp Ile Gly Gly Phe 590 Thr Met Lys Arg	Val 495 Tyr Cys Gln Phe Arg 575 Leu Asn Ala Thr	480 Cys Lys Leu Asn Val 560 Val His Val Glu Cys 640 Val

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670
                                 665
Val Glu Leu Ser Leu Ser Gln Thr Asp Ala Ser Val Asn Ser Glu His
                            680
Phe Asn Gln Asn Glu Pro Lys Val Leu Phe Asn His Leu Met Gly Glu
                                             700
    690
                        695
Ala Gly Cys Arg Ser Cys Pro Asn Asn Ser Gln Ser Cys Gly Arg Ile
                    710
                                        715
Val Arg Val Lys Cys Asn Ser Val Asp Cys Gln Met Pro Asn Met Glu
                725
                                    730
Ala Asn Val Pro Ala Val Leu Thr His Ser Glu Leu Ser Gly Glu Ser
                                745
Leu Leu Ile Lys Thr Leu
        755
<210> 2115
<211> 461
<212> DNA
<213> Homo sapiens
<400> 2115
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ttctgggtat tccagaatct ggaatggggg atgcctatcc ccctcctgag cccacctgct
ggtcttgggt ccttggagcc caccaagtcc acaaccacct gctctgaata gaaagctgac
attgaaccga acagccgcgt cggaggggga tatctgtgga gagctgtgac tgggagccgg
tgtgtgcctt tctgtggtca tttctcgagt cctctgccgg ctgctgccag gtgaaggcat
ctccatgccc agccggtggg cagctggggc gggtggacct ccagcttctg cccgacgggg
ttcaqatqac cgagatccta cgggattgcc aatgtgtggg gacggggggc tttcaggggc
gggaaaacat gtccccatcc gtgggaagtg gagccacgtg g
461
<210> 2116
<211> 146
<212> PRT
<213> Homo sapiens
<400> 2116
Met Gly Thr Cys Phe Pro Ala Pro Glu Ser Pro Pro Ser Pro His Ile
                 5
                                    10
Gly Asn Pro Val Gly Ser Arg Ser Ser Glu Pro Arg Arg Ala Glu Ala
Gly Gly Pro Pro Ala Pro Ala Ala His Arg Leu Gly Met Glu Met Pro
                            40
Ser Pro Gly Ser Ser Arg Gln Arg Thr Arg Glu Met Thr Thr Glu Arg
                        55
His Thr Pro Ala Pro Ser His Ser Ser Pro Gln Ile Ser Pro Ser Asp
                                        75
Ala Ala Val Arg Phe Asn Val Ser Phe Leu Phe Arg Ala Gly Gly Cys
```

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85
Gly Leu Gly Gly Leu Gln Gly Pro Lys Thr Ser Arg Trp Ala Gln Glu
                                105
            100
Gly Asp Arg His Pro Pro Phe Gln Ile Leu Glu Tyr Pro Glu Ala Pro
                           120
                                                125
Ser Gly Arg Glu Gly Gly Val Ser Gly Glu Pro Ala Pro Arg Pro Glu
                        135
    130
Thr Arg
145
<210> 2117
<211> 360
<212> DNA
<213> Homo sapiens
<400> 2117
nnacgcgttg gggagacgac ggtgaccttc ccagcaagct catcgcagga tgaaacaatc
cgcgccagcg ttaagacctt ctcgcgggct gtcaccgccg atctggagaa gtgtggaccg
atcaggtgac actcgcggta gactgaatag atgcctgagt ctgaagacac tgtgtggctg
acccaagagg cettegataa geteacccag gagetggagt acctcaaagg cgaaggeege
acceptcatte ccaacaagat tecegacece cetteegaag eceacette teagaacege
ggctaccatg ccgcccgtga ggagcagggg caggccgagg cccgcatccg tcaactcgag
360
<210> 2118
<211> 70
<212> PRT
<213> Homo sapiens
<400> 2118
Met Pro Glu Ser Glu Asp Thr Val Trp Leu Thr Gln Glu Ala Phe Asp
                                    10
1
Lys Leu Thr Gln Glu Leu Glu Tyr Leu Lys Gly Glu Gly Arg Thr Val
Ile Ala Asn Lys Ile Ala Asp Ala Arg Ser Glu Gly Asp Leu Ser Glu
                            40
Asn Gly Gly Tyr His Ala Ala Arg Glu Glu Gln Gly Gln Ala Glu Ala
                        55
Arg Ile Arg Gln Leu Glu
65
<210> 2119
<211> 465
<212> DNA
<213> Homo sapiens
<400> 2119
nacgegtgaa gggegegtgt eggeetetea etggegeage etgeaetgee getgeegeet
```

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cgccccgccc ttgccttggc gttgtctctg qcactgtggc ggactgacca cggcccgggc
atgggctgca agggagacgc gagcggagtt tgctataaaa tgggagttct ggttgtactc
actgttctgt ggctgttctc ctcagtaaag gccgactcaa aagccattac aacctctctt
acaacaaaat qqttttccac tccattgttg ttagaagcca gtgagttttt agcagaagac
agtcaagaga aattttggaa ttttgtagaa gccagtcaaa atattggatc atcagatcat
gacggtaccg attattccta ctatcatgca atattggagg ctgcatttca gtttctgtca
cocctccage agaatttgtt taaattttgt ctgtcccttc acgcg
465
<210> 2120
<211> 115
<212> PRT
<213> Homo sapiens
<400> 2120
Met Gly Cys Lys Gly Asp Ala Ser Gly Val Cys Tyr Lys Met Gly Val
                                    10
Leu Val Val Leu Thr Val Leu Trp Leu Phe Ser Ser Val Lys Ala Asp
            20
                                25
Ser Lys Ala Ile Thr Thr Ser Leu Thr Thr Lys Trp Phe Ser Thr Pro
                            40
Leu Leu Glu Ala Ser Glu Phe Leu Ala Glu Asp Ser Gln Glu Lys
                        55
Phe Trp Asn Phe Val Glu Ala Ser Gln Asn Ile Gly Ser Ser Asp His
                    70
                                        75
Asp Gly Thr Asp Tyr Ser Tyr Tyr His Ala Ile Leu Glu Ala Ala Phe
                                    90
                85
Gln Phe Leu Ser Pro Leu Gln Gln Asn Leu Phe Lys Phe Cys Leu Ser
            100
                                105
                                                    110
Leu His Ala
        115
<210> 2121
<211> 336
<212> DNA
<213> Homo sapiens
<400> 2121
ccggacaagg tcaatggaat gaaaacctcc cggccgacag acaatagtat aaatgttaca
tgtggtcctc cttatgaaac taatggccct aaaacctttt acattttggt agtcagaagt
ggaggttctt ttgttacaaa atacaacaag acaaactgtc agttttatgt agataatctc
tactattcaa ctgactatga gtttctggtc tcttttcaca atggagtgta cgagggagat
tcagttataa gaaatgagtc aacaaatttt aatgctaaag ccctgattat attcctggtg
300
```

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tttctgatta ttgtgacatc aatagccttg cttgtt
<210> 2122
<211> 112
<212> PRT
<213> Homo sapiens
<400> 2122
Pro Asp Lys Val Asn Gly Met Lys Thr Ser Arg Pro Thr Asp Asn Ser
                                    10
                5
Ile Asn Val Thr Cys Gly Pro Pro Tyr Glu Thr Asn Gly Pro Lys Thr
                                25
Phe Tyr Ile Leu Val Val Arg Ser Gly Gly Ser Phe Val Thr Lys Tyr
Asn Lys Thr Asn Cys Gln Phe Tyr Val Asp Asn Leu Tyr Tyr Ser Thr
Asp Tyr Glu Phe Leu Val Ser Phe His Asn Gly Val Tyr Glu Gly Asp
                                        75
                    70
Ser Val Ile Arg Asn Glu Ser Thr Asn Phe Asn Ala Lys Ala Leu Ile
                                    90
Ile Phe Leu Val Phe Leu Ile Ile Val Thr Ser Ile Ala Leu Leu Val
                                105
            100
<210> 2123
<211> 426
<212> DNA
<213> Homo sapiens
<400> 2123
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cagcaactga ccgacgaact ggaagcgatg ctctgcgccg ccacaggtta tgacgcgatc
tocotgoago ogaacgotgg otocoagggo gagtacgoog gtotgotggo gateogogot
taccaccaga gccgtggcga tgagcgtcgc gacatctgcc tgattccgtc ctctgcccac
ggcaccaacc cggcaaccgc caacatggcc ggcatgcgcg tggtcgtgac cgcttgcgac
geeegeggca acgtegacat egaagacetg egegecaagg etategagea eegegaacae
ctegeggege tgatgateae ctaceegteg acceaeggeg tgttegaaga aggeateege
420
gagatc
426
<210> 2124
<211> 142
<212> PRT
<213> Homo sapiens
<400> 2124
Asn Trp Ala Glu Phe Gly Asn Leu His Pro Phe Ala Pro Ala Glu Gln
```

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10
Ser Ala Gly Tyr Gln Gln Leu Thr Asp Glu Leu Glu Ala Met Leu Cys
                                25
Ala Ala Thr Gly Tyr Asp Ala Ile Ser Leu Gln Pro Asn Ala Gly Ser
Gln Gly Glu Tyr Ala Gly Leu Leu Ala Ile Arg Ala Tyr His Gln Ser
                        55
Arg Gly Asp Glu Arg Arg Asp Ile Cys Leu Ile Pro Ser Ser Ala His
                    70
Gly Thr Asn Pro Ala Thr Ala Asn Met Ala Gly Met Arg Val Val Val
Thr Ala Cys Asp Ala Arg Gly Asn Val Asp Ile Glu Asp Leu Arg Ala
                                105
Lys Ala Ile Glu His Arg Glu His Leu Ala Ala Leu Met Ile Thr Tyr
                            120
Pro Ser Thr His Gly Val Phe Glu Glu Gly Ile Arg Glu Ile
    130
<210> 2125
<211> 285
<212> DNA
<213> Homo sapiens
<400> 2125
ngtatggcat ctgctgcttc aagttttgtg gtgacaccaa atgtcacttc taacacacc
acagtcaagc ccaatatggt tatgttacct attcaaaaca caagaggttc aagattggtt
ctaaaggegg ctgaagaege ggcaccaeeg getgteaeeg ttgaagegge caaggaagag
aaqccqaaqc caccaccaat tggacctaag agaggagcca aggtgagaat tettaggaag
gagtcatact ggttcaaagg agtgggatca gttgtgactg ttgat
285
<210> 2126
<211> 95
<212> PRT
<213> Homo sapiens
<400> 2126
Xaa Met Ala Ser Ala Ala Ser Ser Phe Val Val Thr Pro Asn Val Thr
                                    10
Ser Asn Thr Thr Thr Val Lys Pro Asn Met Val Met Leu Pro Ile Gln
Asn Thr Arg Gly Ser Arg Leu Val Leu Lys Ala Ala Glu Asp Ala Ala
                            40
Pro Pro Ala Val Thr Val Glu Ala Ala Lys Glu Glu Lys Pro Lys Pro
Pro Pro Ile Gly Pro Lys Arg Gly Ala Lys Val Arg Ile Leu Arg Lys
                                        75
Glu Ser Tyr Trp Phe Lys Gly Val Gly Ser Val Val Thr Val Asp
                85
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<210> 2127
<211> 454
<212> DNA
<213> Homo sapiens
<400> 2127
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gegaegeata ttecagggea ettgteacea gteatgeeat tgggtaceat gaacceatge
120
atgcagtact gcatgatgca acaggggctt gccagcttga tggcgtgtcc gtccctgatg
ctgcagcaac tgttggcctt accgcttcag acgatgccag tgatgatgcc acagatgatg
acgectaaca tgatgtcace attgatgatg cegageatga tgtcaccaat ggtettgeeg
agcatgatgt cgcaaatgat gatgccacaa tgtcactgcg acgccgtctc gcagattatg
ctgcaacagc agttaccatt catgttcaac ccaatggcca tgacgattcc acccatgttc
ttacagcaac cetttgttgg tgctgcattc taga
454
<210> 2128
<211> 150
<212> PRT
<213> Homo sapiens
<400> 2128
Met Ala Ala Lys Met Leu Ala Leu Phe Ala Leu Leu Ala Leu Cys Ala
                                    10
Ser Ala Thr Ser Ala Thr His Ile Pro Gly His Leu Ser Pro Val Met
                                25
Pro Leu Gly Thr Met Asn Pro Cys Met Gln Tyr Cys Met Met Gln Gln
                            40
Gly Leu Ala Ser Leu Met Ala Cys Pro Ser Leu Met Leu Gln Gln Leu
                                            60
                        55
Leu Ala Leu Pro Leu Gln Thr Met Pro Val Met Met Pro Gln Met Met
Thr Pro Asn Met Met Ser Pro Leu Met Met Pro Ser Met Met Ser Pro
                                    90
                85
Met Val Leu Pro Ser Met Met Ser Gln Met Met Met Pro Gln Cys His
                                105
Cys Asp Ala Val Ser Gln Ile Met Leu Gln Gln Gln Leu Pro Phe Met
                                                125
                            120
Phe Asn Pro Met Ala Met Thr Ile Pro Pro Met Phe Leu Gln Gln Pro
                        135
Phe Val Gly Ala Ala Phe
145
                    150
<210> 2129
<211> 354
<212> DNA
<213> Homo sapiens
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acgogtgact tggtgaacaa acccatatcc atcaccccct tcggtgttga tacggaaata

<400> 2129

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ctcacgccct ttgacaagcg gcgtgatgcg aacggcggtg acggggtggt gcgcatcggg
actatcaagg ctctccactc caaatatggg atcggtgaac tcatccgtgc cttcagtcgg
gtecatgatg aacggectaa taccgteett cgtatetggg geggeggeec agacgagaat
cccctcaagg tcttggctcg ccgtcttgtc ccggacggtt cggtggagtt tcgcggtgcc
attgatcatt ctgaggtcag aaatgccttg ggtagtttgg acatctttgc cgcc
354
<210> 2130
<211> 118
<212> PRT
<213> Homo sapiens
<400> 2130
Thr Arg Asp Leu Val Asn Lys Pro Ile Ser Ile Thr Pro Phe Gly Val
Asp Thr Glu Ile Leu Thr Pro Phe Asp Lys Arg Arg Asp Ala Asn Gly
Gly Asp Gly Val Val Arg Ile Gly Thr Ile Lys Ala Leu His Ser Lys
                             40
Tyr Gly Ile Gly Glu Leu Ile Arg Ala Phe Ser Arg Val His Asp Glu
                        55
Arg Pro Asn Thr Val Leu Arg Ile Trp Gly Gly Pro Asp Glu Asn
                    70
                                        75
Pro Leu Lys Val Leu Ala Arg Arg Leu Val Pro Asp Gly Ser Val Glu
                                    90
Phe Arg Gly Ala Ile Asp His Ser Glu Val Arg Asn Ala Leu Gly Ser
            100
                                105
Leu Asp Ile Phe Ala Ala
        115
<210> 2131
<211> 324
<212> DNA
<213> Homo sapiens
<400> 2131
gcatcgcggc cattggttat gtgtgcctat tccattggtt atgtggaagg ttgggatcag
ccagacagtc attatgatgg tttgttacag ctgggcgagt ggggctttcg aatcaatgac
ctgatgaaga cggtagaggg cgcggcaggg tgcattgagt attatgaaat gctcaacgaa
caacgccccg acttgtctta tgacatagac ggtattgttt ataaagttga tcagattgac
ctgcaaqaag agcttggttt tattgctcgt gcgccacgct gggcaattgc tcgaaaattt
300
```

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cctgctcaag aagaagttac gcgt
<210> 2132
<211> 108
<212> PRT
<213> Homo sapiens
<400> 2132
Ala Ser Arg Pro Leu Val Met Cys Ala Tyr Ser Ile Gly Tyr Val Glu
                                    10
1
Gly Trp Asp Gln Pro Asp Ser His Tyr Asp Gly Leu Leu Gln Leu Gly
                                25
            20
Glu Trp Gly Phe Arg Ile Asn Asp Leu Met Lys Thr Val Glu Gly Ala
                            40
Ala Gly Cys Ile Glu Tyr Tyr Glu Met Leu Asn Glu Gln Arg Pro Asp
Leu Ser Tyr Asp Ile Asp Gly Ile Val Tyr Lys Val Asp Gln Ile Asp
                                        75
Leu Gln Glu Glu Leu Gly Phe Ile Ala Arg Ala Pro Arg Trp Ala Ile
Ala Arg Lys Phe Pro Ala Gln Glu Glu Val Thr Arg
                                105
            100
<210> 2133
<211> 292
<212> DNA
<213> Homo sapiens
<400> 2133
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gtggctgtct ttagaggacc cggcgaactt ttcctgcttt ttcccacttg ctccatcaca
120
tacatcacat caccaacacc catcacatac atacacagtc atgaacggcc atcaggccac
accagattac atcgctgtgg atccaaccct gcattttcct gcccctcctt tactgcgagt
gtcacctcta cccggaaagg tcttcaacct ccaagtttcc cagtaattta tt
292
<210> 2134
<211> 93
<212> PRT
<213> Homo sapiens
<400> 2134
Met Val Leu His Asp Met Asn Lys Phe Phe Leu Thr Leu Asn Ser Leu
                                    10
Val Ala Val Phe Arg Gly Pro Gly Glu Leu Phe Leu Leu Phe Pro Thr
                                25
Cys Ser Ile Thr Tyr Ile Thr Ser Pro Thr Pro Ile Thr Tyr Ile His
                            40
Ser His Glu Arg Pro Ser Gly His Thr Arg Leu His Arg Cys Gly Ser
```

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Asn Pro Ala Phe Ser Cys Pro Ser Phe Thr Ala Ser Val Thr Ser Thr
                    70
Arg Lys Gly Leu Gln Pro Pro Ser Phe Pro Val Ile Tyr
<210> 2135
<211> 439
<212> DNA
<213> Homo sapiens
<400> 2135
acgcgttcca ttggtgtgtc gaatttcaag accgagcatc tggacgccat cgagggggcc
actecgageg tegaceaaat egagatgeat ecetegttea accaggegae etteegegea
gagetggeeg agegegeat taacceggag geetggagee egetgggeea gtegaaggae
ctcgacaatc ccgtcctcac cgatatttcc aaggcgactg gaaagacgcc tgcccaggtg
gtcattcgct ggcacctgca gatcggcaac gtggtattcc ccaagtcggt gacaccatca
cgaattgccg agaactttga tgtgttcgat ttcgagctgt ctgacgagca gatcgccgca
attgatggcc tggatcacgg caacaggctc ggtggtgacc cttctaccgc cgacttctga
ttctgcaaca ataaccggt
439
<210> 2136
<211> 139
<212> PRT
<213> Homo sapiens
<400> 2136
Thr Arg Ser Ile Gly Val Ser Asn Phe Lys Thr Glu His Leu Asp Ala
                                    10
Ile Glu Gly Ala Thr Pro Ser Val Asp Gln Ile Glu Met His Pro Ser
            20
                                25
Phe Asn Gln Ala Thr Phe Arg Ala Glu Leu Ala Glu Arg Gly Ile Asn
                            40
Pro Glu Ala Trp Ser Pro Leu Gly Gln Ser Lys Asp Leu Asp Asn Pro
Val Leu Thr Asp Ile Ser Lys Ala Thr Gly Lys Thr Pro Ala Gln Val
                                        75
                    70
Val Ile Arg Trp His Leu Gln Ile Gly Asn Val Val Phe Pro Lys Ser
Val Thr Pro Ser Arg Ile Ala Glu Asn Phe Asp Val Phe Asp Phe Glu
                                105
Leu Ser Asp Glu Gln Ile Ala Ala Ile Asp Gly Leu Asp His Gly Asn
                                                125
                            120
Arg Leu Gly Gly Asp Pro Ser Thr Ala Asp Phe
                        135
    130
```

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<210> 2137
<211> 330
<212> DNA
<213> Homo sapiens
<400> 2137
nncctttgcc ttggctgata ccctcaccac ctgggaacat cccccagaca ccctcttaac
teegggacag agatggetgg eggageetgg ggeegeetgg eetgttaett ggagtteetg
aagaaggagg agctgaagga gttccagctt ctgctcgcca ataaagcgca ctccaggagc
tottccggtg agacacccgc tcagccagag aagacgagtg gcatggaggt ggcctcgtac
ctggtggctc agtatgggga gcagcgggcc tgggacctag ccctccatac ctgggagcag
atggggctga ggtcactgtg cgcccaagcc
330
<210> 2138
<211> 86
<212> PRT
<213> Homo sapiens
<400> 2138
Met Ala Gly Gly Ala Trp Gly Arg Leu Ala Cys Tyr Leu Glu Phe Leu
                                    10
Lys Lys Glu Glu Leu Lys Glu Phe Gln Leu Leu Leu Ala Asn Lys Ala
His Ser Arg Ser Ser Ser Gly Glu Thr Pro Ala Gln Pro Glu Lys Thr
Ser Gly Met Glu Val Ala Ser Tyr Leu Val Ala Gln Tyr Gly Glu Gln
                        55
Arg Ala Trp Asp Leu Ala Leu His Thr Trp Glu Gln Met Gly Leu Arg
                                        75
Ser Leu Cys Ala Gln Ala
                85
<210> 2139
<211> 433
<212> DNA
<213> Homo sapiens
<400> 2139
gagcagttga gcgcccagaa caccgggatc aacagcaacc tgtcggacat ggccggccag
gtgaacaagc tggcgagtac catcgcccag tacaacgatc agatttccaa agtcaccacc
geegeeggtg eecegaacga eetgetggae eagegeageg aggeggtgeg eeagttgtee
180
gagctggtcg ggacccaggt ggtccagcgc ggttcgagtt atgacgtcta tatcggcagc
ggtcagcgcc tggtgatggg caacagcacc aacaccctgt ccgcagtgcc gagcaaggac
300
```

```
qaeccqaqce agtcggcctt gcagctggat cgcggcacca gcaccgtcga tatcacctcc
acggtgaccg gtggcgagat cggtggtctg ctgcgctatc gcagcgatgt gctcgacccg
tcgatcaacg cgt
433
<210> 2140
<211> 144
<212> PRT
<213> Homo sapiens
<400> 2140
Glu Gln Leu Ser Ala Gln Asn Thr Gly Ile Asn Ser Asn Leu Ser Asp
                                    10
1
Met Ala Gly Gln Val Asn Lys Leu Ala Ser Thr Ile Ala Gln Tyr Asn
            20
Asp Gln Ile Ser Lys Val Thr Thr Ala Ala Gly Ala Pro Asn Asp Leu
Leu Asp Gln Arg Ser Glu Ala Val Arg Gln Leu Ser Glu Leu Val Gly
                        55
Thr Gln Val Val Gln Arg Gly Ser Ser Tyr Asp Val Tyr Ile Gly Ser
                                        75
                    70
Gly Gln Arg Leu Val Met Gly Asn Ser Thr Asn Thr Leu Ser Ala Val
                                    90
Pro Ser Lys Asp Asp Pro Ser Gln Ser Ala Leu Gln Leu Asp Arg Gly
            100
                                105
Thr Ser Thr Val Asp Ile Thr Ser Thr Val Thr Gly Gly Glu Ile Gly
                            120
                                                125
Gly Leu Leu Arg Tyr Arg Ser Asp Val Leu Asp Pro Ser Ile Asn Ala
    130
                        135
                                            140
<210> 2141
<211> 426
<212> DNA
<213> Homo sapiens
<400> 2141
nnatatecat geagegatee teateaattt getgtgttat taggetttgg tgegaegget
gtttatcctt atctttcttt ccgcttgatc aatgatatgg tggataaagg cgaagtgtta
ggtgacccaa ttgcttgtca tgttaaatat cgtaaaggta ttaacaaagg cttgatgaaa
180
atcetgteta aaatgggtat ttcaacgatt geetettate gtggtgegea attgtttgaa
geggttgget tggatactaa agtggtegae etttgtttea aaggegttge aagtegtate
aaaggtgete gttttgaaga ttteeagegt gateaageaa egattgeeaa taatgettgg
aagttacgta aacctattca acagggcggt tatcttaaat acgtacatga ctctgagtat
420
cacgcg
426
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<210> 2142
<211> 142
<212> PRT
<213> Homo sapiens
<400> 2142
Xaa Tyr Pro Cys Ser Asp Pro His Gln Phe Ala Val Leu Leu Gly Phe
                 5
                                    10
Gly Ala Thr Ala Val Tyr Pro Tyr Leu Ser Phe Arg Leu Ile Asn Asp
                                25
Met Val Asp Lys Gly Glu Val Leu Gly Asp Pro Ile Ala Cys His Val
Lys Tyr Arg Lys Gly Ile Asn Lys Gly Leu Met Lys Ile Leu Ser Lys
                        55
Met Gly Ile Ser Thr Ile Ala Ser Tyr Arg Gly Ala Gln Leu Phe Glu
                                        75
Ala Val Gly Leu Asp Thr Lys Val Val Asp Leu Cys Phe Lys Gly Val
                                    90
Ala Ser Arg Ile Lys Gly Ala Arg Phe Glu Asp Phe Gln Arg Asp Gln
                                105
            100
Ala Thr Ile Ala Asn Asn Ala Trp Lys Leu Arg Lys Pro Ile Gln Gln
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Gly Gly Tyr Leu Lys Tyr Val His Asp Ser Glu Tyr His Ala
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acgeteaaga geacatatga gtaceteegg eteategaeg gteaegatet accegaegae
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gacagtegge aggeeeacgt cacecaacte atggeggegt catecetgaa aaceeteaac
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atcacgagaa agacggtgat gacggatctg cccatcgcga cgatgaggcg ggagatcggc
ctgtccaacg acgggttgtg cctcacaccg tggaaggtca agacgacttc ttccgaggag
geteggtggg egatgeagge getggeeagt geegaeetat teageaatge taaggaegee
660
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gagaaatggg ggtgggagte gateteggae gggtatttge gecatetega gaeetacagt
ggcccgagta cgactatcgc gatggccttg tcggcggcga ataccgtctc tacattgtct
780
cgttcccagt tgcaacgcat cggcgacagt ctcgcggatg cgccatatcc gaggaaggac
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gcgtacctgt tgaggtattc cgggaattgg gcgtggtgac atgacggttt cttggcaagg
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1008
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His Ile Val Arg Ser Met Ser Phe Gln Arg Phe Leu Ala Gly Val Ala
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Ala Ile Leu Leu Leu Pro Thr Ala Cys Ala Asp Asp Ala Gln Ala
                            40
Pro Val Val Asp Asn Leu Gly Thr Val Leu Ser Pro Ser Asn Ser Leu
                        55
Ile Arg Glu Pro Ala Asn Ser Ser Val Asn Gly Thr Leu Lys Ser Thr
                                        75
Tyr Glu Tyr Leu Arg Leu Ile Asp Gly His Asp Leu Pro Asp Asp Asp
                85
                                    90
Gly Tyr Ala His Asp His Leu Val Ala Ala Leu Arg Pro Tyr Leu Val
            100
                                105
                                                    110
Asn Gly Gly Asp Ser Arg Gln Ala His Val Thr Gln Leu Met Ala Ala
                            120
                                                125
Ser Ser Leu Lys Thr Leu Asn Ala Leu Ser Asp Lys Glu Arg Ser Glu
                        135
Val Asp Lys Arg Thr Arg Leu Pro Lys Gly Cys Ile Thr Arg Lys Thr
                                        155
                    150
Val Met Thr Asp Leu Pro Ile Ala Thr Met Arg Arg Glu Ile Gly Leu
                                    170
                                                        175
                165
Ser Asn Asp Gly Leu Cys Leu Thr Pro Trp Lys Val Lys Thr Thr Ser
                                185
Ser Glu Glu Ala Arg Trp Ala Met Gln Ala Leu Ala Ser Ala Asp Leu
                            200
       195
Phe Ser Asn Ala Lys Asp Ala Glu Lys Trp Gly Trp Glu Ser Ile Ser
                                           220
                        215
Asp Gly Tyr Leu Arg His Leu Glu Thr Tyr Ser Gly Pro Ser Thr Thr
                    230
                                       235
Ile Ala Met Ala Leu Ser Ala Ala Asn Thr Val Ser Thr Leu Ser Arg
Ser Gln Leu Gln Arg Ile Gly Asp Ser Leu Ala Asp Ala Pro Tyr Pro
                                265
Arg Lys Asp Leu Gly Pro Ala Leu Ile Arg Asn Gly Lys Pro Val Lys
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285
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Asp Lys Cys Ser Ile Glu Ser Ala Tyr Leu Leu Arg Tyr Ser Gly Asn
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    290
Trp Ala Trp
305
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<211> 389
<212> DNA
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ttatttagct cggcccagcc ttctgctgaa caactaaaat tgattaaaga gtttggttgt
agcacagtca ttaaccttgc tttaactaat gcttcaaatc atcttgagaa tgaagaccgt
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tggatacatt gcgccaaaaa taaacgcgt
389
<210> 2146
<211> 109
<212> PRT
<213> Homo sapiens
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Met Thr Thr Leu Glu Gln Ser Leu Ser Gln Ile Pro Ala Phe Ser Ile
                                    10
Ile His Glu His Leu Phe Ser Ser Ala Gln Pro Ser Ala Glu Gln Leu
Lys Leu Ile Lys Glu Phe Gly Cys Ser Thr Val Ile Asn Leu Ala Leu
                            40
Thr Asn Ala Ser Asn His Leu Glu Asn Glu Asp Arg Ile Cys Leu Asp
                        55
Leu Gly Leu Asn Tyr Ile His Ile Pro Ile Asp Trp Glu Met Pro Ser
                                        75
Ala Glu Gln Cys Leu Leu Val Leu Asp Leu Ile Asp His Leu Val Gln
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Asn Glu Ile Val Trp Ile His Cys Ala Lys Asn Lys Arg
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<212> DNA
<213> Homo sapiens
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120
acatgtgccc agcagetgtg gtgtcccggc cagecetgtc teccacetgc cacgtgtgtg
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235
<210> 2148
<211> 78
<212> PRT
<213> Homo sapiens
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Leu Pro Ala Gly Cys Val Ser Glu Asp Met Cys Ser Pro Asp Pro Cys
                                    10
Phe Asn Gly Gly Thr Cys Leu Val Thr Trp Asn Asp Phe His Cys Thr
                                25
Cys Pro Ala Asn Phe Thr Gly Pro Thr Cys Ala Gln Gln Leu Trp Cys
Pro Gly Gln Pro Cys Leu Pro Pro Ala Thr Cys Val Ala Glu Ala Thr
Phe Arg Glu Gly Pro Pro Ala Ala Phe Ser Gly His Asn Ala
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<210> 2149
<211> 1474
<212> DNA
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caacacgtgg gagtaagact tctcctgctc ttttgccagtg gtctgaggtg atgaaccacc
ctggcttggt gtgctgtgtc cagcaaacta caggggtgcc gctggtagtt atggtgaaac
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tggttgctat taggcacacg gcctgcaatg agcagcagcg gacaacaatg attctgctgt
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cacaaccagc agctgacaga tgtggagttt ggtggtaacg acctcctaca ggtctataat
gcacaacaga taaaacaccg gctgaattcc actggcatgt atgtggccaa caccaagccc
660
```

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ggaggettea ceattgagat tagtaacaac aatagcacta tggtgatgac aggeatgegg
720
atccagattg ggactcaagc aatagaacgg gccccgtcat atatcgagat cttcggcaga
actatgcage teaacetgag tegeteaege tggtttgact teecetteae cagagaagaa
gccctgcagg ctgataagaa gctgaacctc ttcattgggg cctcggtgga tccagcaggt
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gatgagecee cagaagaatt ecettetgee tetgteagea acatetgeee tteaaatetg
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tecetgecag caeetgecag tgtecageag cagtecaaga geettetgge cageetgeae
1260
accageeget eggeetacca cageeacaag gtaactgtte teteagggaa aggaaattge
agtgctgaca gggaatcaaa taagttagct cttcattgta aagcaacagc acagcaaagt
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1474
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<211> 312
<212> PRT
<213> Homo sapiens
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Ser Gln Val Thr Phe Pro Ile Asp Phe Phe Glu His Asn Gln Gln Leu
Thr Asp Val Glu Phe Gly Gly Asn Asp Leu Leu Gln Val Tyr Asn Ala
Gln Gln Ile Lys His Arg Leu Asn Ser Thr Gly Met Tyr Val Ala Asn
                        55
Thr Lys Pro Gly Gly Phe Thr Ile Glu Ile Ser Asn Asn Asn Ser Thr
                    70
                                        75
Met Val Met Thr Gly Met Arg Ile Gln Ile Gly Thr Gln Ala Ile Glu
                                    90
Arg Ala Pro Ser Tyr Ile Glu Ile Phe Gly Arg Thr Met Gln Leu Asn
                                105
Leu Ser Arg Ser Arg Trp Phe Asp Phe Pro Phe Thr Arg Glu Glu Ala
                                                125
                            120
Leu Gln Ala Asp Lys Lys Leu Asn Leu Phe Ile Gly Ala Ser Val Asp
                        135
Pro Ala Gly Val Thr Met Ile Asp Ala Val Lys Ile Tyr Gly Lys Thr
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150
145
Lys Glu Gln Phe Gly Trp Pro Asp Glu Pro Pro Glu Glu Phe Pro Ser
                                     170
                                                         175
                165
Ala Ser Val Ser Asn Ile Cys Pro Ser Asn Leu Asn Gln Ser Asn Gly
                                185
            180
Thr Gly Asp Ser Asp Ser Ala Ala Pro Thr Thr Thr Ser Gly Thr Val
                            200
                                                 205
Leu Glu Arg Leu Val Val Ser Ser Leu Glu Ala Leu Glu Ser Cys Phe
                        215
Ala Val Gly Pro Ile Ile Glu Lys Glu Arg Asn Lys Asn Ala Ala Gln
                    230
                                         235
Glu Leu Ala Thr Leu Leu Leu Ser Leu Pro Ala Pro Ala Ser Val Gln
                                     250
                245
Gln Gln Ser Lys Ser Leu Leu Ala Ser Leu His Thr Ser Arg Ser Ala
                                265
            260
Tyr His Ser His Lys Val Thr Val Leu Ser Gly Lys Gly Asn Cys Ser
                            280
Ala Asp Arg Glu Ser Asn Lys Leu Ala Leu His Cys Lys Ala Thr Ala
                        295
                                             300
Gln Gln Ser Lys Val Glu Gly Gly
                    310
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<211> 511
<212> DNA
<213> Homo sapiens
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gacgcgatca ttctcgggcg cctgtttcag gtgatgttcg acgcaggcgt ggtggtggtc
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ctgccqqcga tcaccgcgat caaacagcac atgcaagtgg tcgcggtgaa tggcgcggaa
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ggtagcgcgt tgagccaggt gttcgacgcg t
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<211> 170
<212> PRT
<213> Homo sapiens
<400> 2152
Ala Gly Val Tyr Leu Trp Gly Pro Val Gly Arg Gly Lys Thr Trp Leu
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Met Asp Gln Phe His Gln Ser Leu Xaa Gly Cys Arg Arg Xaa Arg Gln
                               25
His Phe His His Phe Met Gly Trp Val His Gln Arg Ser Phe Gln Leu
Thr Gly Ile Ala Asp Pro Leu Arg Ala Leu Ala Arg Glu Leu Ala Ala
                        55
Glu Val Arg Val Leu Cys Phe Asp Glu Leu Phe Val Asn Asp Ile Gly
                                        75
                    70
Asp Ala Ile Ile Leu Gly Arg Leu Phe Gln Val Met Phe Asp Ala Gly
                                    90
Val Val Val Cys Thr Ser Asn Leu Pro Pro Asp Gln Leu Tyr Ala
                                105
Asp Gly Phe Asn Arg Asp Arg Phe Leu Pro Ala Ile Thr Ala Ile Lys
                            120
Gln His Met Gln Val Val Ala Val Asn Gly Ala Glu Asp His Arg Leu
                                            140
                        135
His Pro Gly Ala Ile Glu Gln Arg Tyr Trp Val Ala Leu Pro Glu Gln
                                        155
                    150
Gly Ser Ala Leu Ser Gln Val Phe Asp Ala
                165
<210> 2153
<211> 528
<212> DNA
<213> Homo sapiens
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atgteggtég atcegcaaca cetgettege gagetgtttg ceacagecat egatgeegee
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gaagtcaccg gcctggtggt cacccgctac ggccacggcg cgccgtgcaa aaaaatcgaa
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528
<210> 2154
 <211> 96
 <212> PRT
 <213> Homo sapiens
<400> 2154
Met Ser Val Asp Pro Gln His Leu Leu Arg Glu Leu Phe Ala Thr Ala
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10
Ile Asp Ala Ala His Pro Arg His Val Leu Glu Pro Tyr Leu Pro Ala
            20 '
                                25
Asp Arg Thr Gly Arg Val Ile Val Ile Gly Pro Gly Lys Thr Ala Pro
                            40
Ala Met Ala Leu Val Val Glu Asn Gly Trp Gln Gly Glu Val Thr Gly
Leu Val Val Thr Arg Tyr Gly His Gly Ala Pro Cys Lys Lys Ile Glu
Val Val Glu Ala Ala His Pro Val Pro Asp Ala Ala Gly Leu Ala Val
                                    90
<210> 2155
<211> 297
<212> DNA
<213> Homo sapiens
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gtgctcagtt tctacttccg tgatgaagtg ctgccctact atgcgggcga cgccgtcgcg
gegegegaac tggeggeeaa tgactteaaa tactgggage tgatgegaeg egeetgtgeg
cgcggcctca aggtgtttga ctacggccgc agcaagcagg gcacgggctc ctacgcn
297
<210> 2156
<211> 91
<212> PRT
<213> Homo sapiens
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Met Pro Arg Arg Tyr Phe Glu Ala Leu Leu Gln Glu Phe Gly Pro Asp
Cys Glu Val Leu Thr Val Thr Asp Ser Glu Gly Asn Pro Leu Ser Ser
                                25
Val Leu Ser Phe Tyr Phe Arg Asp Glu Val Leu Pro Tyr Tyr Ala Gly
                            40
Asp Ala Val Ala Arg Glu Leu Ala Ala Asn Asp Phe Lys Tyr Trp
Glu Leu Met Arg Arg Ala Cys Ala Arg Gly Leu Lys Val Phe Asp Tyr
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Gly Arg Ser Lys Gln Gly Thr Gly Ser Tyr Ala
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<210> 2157
<211> '711
<212> DNA
<213> Homo sapiens
<400> 2157
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120
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180
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catgeegeag ceggagaget getgtacgeg tataacateg tgeggeeaeg egetgtgatg
ccgattcatg gtgaggtgcg tcatcttgtc gctaatgccg atctggccaa agcaaccggt
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tcagtcgtca ccgtggtcga cacccgctcg gcgtcagtgg tgtctcgccc ggcgatccag
gegegtggtt ttgeegaggg egacteggte ttegeggaga teacegacea gategteace
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711
<210> 2158
<211> 237
<212> PRT
<213> Homo sapiens
<400> 2158
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1
Pro Leu Ser Ala Leu Ala Arg Ile Ala Asn Arg Glu His Arg Asp Ile
Glu Val Gly Glu Gly Asp Thr Val Leu Leu Ala Ser Ser Leu Ile Pro
                            40
Gly Asn Glu Asn Ala Val Tyr Arg Val Ile Asn Gly Leu Thr Lys Leu
                                            60
                        55
Gly Ala Ala Val Val His Lys Gly Asn Ala Leu Val His Val Ser Gly
                                        75
His Ala Ala Ala Gly Glu Leu Leu Tyr Ala Tyr Asn Ile Val Arg Pro
                                    90
Arg Ala Val Met Pro Ile His Gly Glu Val Arg His Leu Val Ala Asn
                                105
            100
Ala Asp Leu Ala Lys Ala Thr Gly Val Asp Glu Asn Asn Val Val Leu
                            120
Val Glu Asp Gly Gly Val Ile Asp Leu Val Asp Gly Val Pro Arg Val
                        135
                                            140
Val Gly Lys Val Asp Ala Ser Tyr Ile Leu Val Asp Gly Ser Gly Val
                                        155
                    150
Gly Glu Leu Thr Glu Asp Thr Leu Thr Asp Arg Arg Ile Leu Gly Glu
                                                        175
                                    170
Glu Gly Phe Leu Ser Val Val Thr Val Val Asp Thr Arg Ser Ala Ser
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180
                                185
Val Val Ser Arg Pro Ala Ile Gln Ala Arg Gly Phe Ala Glu Gly Asp
        195
                            200
Ser Val Phe Ala Glu Ile Thr Asp Gln Ile Val Thr Glu Leu Glu Lys
                        215
Ala Met Ala Gly Gly Met Asp Asp Thr His Arg Leu Gln
<210> 2159
<211> 322
<212> DNA
<213> Homo sapiens
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cctgtttgga aaagttgtct ctgcagatgg tgggtgagag ttcgctgcca gggccactgt
cttccctgcc ctgcggacac ttcttcccca ccttcctaaa gctgtgggag acctggagcc
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tgggggcctt ctggttctcc tt
322
<210> 2160
<211> 100
<212> PRT
<213> Homo sapiens
<400> 2160
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                                    10
Ile Asp Ala Pro Arg Leu Gln Val Ser His Ser Phe Arg Lys Val Gly
                                25
Lys Lys Cys Pro Gln Gly Arg Glu Asp Ser Gly Pro Gly Ser Glu Leu
                            40
Ser Pro Thr Ile Cys Arg Asp Asn Phe Ser Lys Gln Val Glu Gly Asn
Arg Leu Leu His Lys Ala Leu Pro Gly Arg Pro Trp Ser Cys Cys
                  . 70
                                       75
Pro Ala Ser Trp Cys Pro Phe Thr Arg Cys Arg Leu Ser Arg Gly Trp
Ser Val Leu Ala
           100
<210> 2161
<211> 1070
<212> DNA
<213> Homo sapiens
<400> 2161
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ggatgtactc agaaattaag aaaacatatt aggacttgcc aaaagtgaga gaagcaactg
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gtggcaagaa tcctatgaaa gtgtaggcag atctgagagc acagacaaat acagtggaga
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960
tggctagctg agtaaaggac catcgtataa aacagacaaa agttaagact agatggagtg
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1070
<210> 2162
<211> 145
<212> PRT
<213> Homo sapiens
<400> 2162
Met Val Leu Tyr Ser Ala Ser Gln Leu Ser Leu Pro Ser Tyr Ser Ile
1
Ile Thr Leu Ile Gln Glu Trp Phe Leu Tyr Pro Pro Val Asn Thr Cys
Leu Ser Ser Ser His Pro Leu Thr Ser Ala Gly Thr Leu His Phe Leu
Leu Pro Phe Leu Ser Ser Ser Phe Cys Pro Arg Glu Ser Cys Cys Tyr
                        55
Ile Phe Cys Val Pro Pro Ser Phe Ser Cys His Leu Cys Val Ile Leu
                    70
Arg Asp Ser Met Gly Ser Ser Gly Tyr Ser Pro Pro His Gly His Ser
```

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B5
                                   90
Leu Leu Ser Pro Leu Pro Ser Ala Leu Cys His Ile Leu His Cys Ile
                              105
           100
Cys Leu Cys Ser Gln Ile Cys Leu His Phe His Arg Ile Leu Ala Thr
                           120
Gly Leu Pro Phe Met Pro Ile Pro Phe Ser Leu Ser His Leu Ser Pro
                       135
   130
Tyr
145
<210> 2163
<211> 657
<212> DNA
<213> Homo sapiens
<400> 2163
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tggttccggg ttggaaggtt gggtgaaatg ggaaccgaat accaatttca cccgggaacc
agtaatgccc atgataaccg ccaagttggg accgaagttg ggatccataa gtacgggcgg
240
ccagtggggt ggaattgggt taagccccct cccagccttt ctccgaccgc gtgctccgtc
agacatgeca agaggetete tetecaggag agecaectgt gaaacccaec eggeatgete
ctcccaccac tgtgcacaga cgagtgcctg ggctccagag agggagggag ctgaaggcct
cagacaggag tecgtecegt ecagteceat cateceaaga aacateegge ecgaeteeet
gcagetecat ggeteaacaa ggtgeggatg cetgetggae etggetgett tecatecaae
tttgatccct tccccaagag gaagagtgct acctagggac aagtgtggtg cgcacaggca
tgcagcctgg tctcttgctc aggcggcttg cgcagattcc tagaggaatc tgcagcg
<210> 2164
<211> 152
<212> PRT .
<213> Homo sapiens
<400> 2164
Met Pro Met Ile Thr Ala Lys Leu Gly Pro Lys Leu Gly Ser Ile Ser
1
Thr Gly Gly Gln Trp Gly Gly Ile Gly Leu Ser Pro Leu Pro Ala Phe
                              25
Leu Arg Pro Arg Ala Pro Ser Asp Met Pro Arg Gly Ser Leu Ser Arg
                           40
Arg Ala Thr Cys Glu Thr His Pro Ala Cys Ser Ser His His Cys Ala
Gln Thr Ser Ala Trp Ala Pro Glu Arg Glu Gly Ala Glu Gly Leu Arg
```

```
75
                    70
65
Gln Glu Ser Val Pro Ser Ser Pro Ile Ile Pro Arg Asn Ile Arg Pro
                85
Asp Ser Leu Gln Leu His Gly Ser Thr Arg Cys Gly Cys Leu Leu Asp
                                105
Leu Ala Ala Phe His Pro Thr Leu Ile Pro Ser Pro Arg Gly Arg Val
                                                125
                            120
Leu Pro Arg Asp Lys Cys Gly Ala His Arg His Ala Ala Trp Ser Leu
                        135
Ala Gln Ala Ala Cys Ala Asp Ser
                    150
<210> 2165
<211> 962
<212> DNA
<213> Homo sapiens
<400> 2165
nettteteat egacagegae geacaacegg egacateace ggtgaeggtt caaggtggea
gecegaggge eegeegtgaa ettattgtgt egtettatgg aagaaaagte aeteggaagt
acceptaaatc accecagege ctcatecece gaatetette gecateteet gtegeecete
cgcttaaggc atcaccccac tagactgacc gaagtctcgc cgagggaggc tagggaggct
taggtggcca ggaatgacat cgggacgacg tctacgcgtc gaataggcag cggacgtacg
tegagtaceg geogtacggt ggtgtettet gacegeacae geagagetat egetaaaaga
360
ttgatggccc gcacctcagc tatgacgacg gccactctag aggaaatggg tcgtcgacac
tectggttee gtgatetgte ageegaagaa agategtgga tetegategt ggetegetea
ggtattgacg gcttcgtcca gtggtttgct gacgatgacg ccgagcccta ctcccccacc
gacgtcttcg acgtggcgcc ccggtccatg acccgcaaga tctccttgca ccagacagtc
gagetegtee geaceaegat tgaegtegtt gaggeacaaa ttgagaeega aatgeeaege
ggtgatcgcc aagtgctgcg cactgccatc gttcactact cccgcgaggt ggccttcgcc
geegeegagg tttacgegeg ageegeegaa egtegeggta eetgggatga aegtetggaa
tecetegteg ttgatgeegt egtgegagee gaegeegatg aacageteat etegegaget
totactoteg gotggegece gggcatcaac ctetgegteg ttgtegggeg ggececgacg
accgagcatg aactccacgt gctgcgacgt gatggagaac gcatgcagat gacggtgcta
960
gc
962
```

<210> 2166

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<211> 239
<212> PRT
<213> Homo sapiens
<400> 2166
Val Ala Arg Asn Asp Ile Gly Thr Thr Ser Thr Arg Arg Ile Gly Ser
Gly Arg Thr Ser Ser Thr Gly Arg Thr Val Val Ser Ser Asp Arg Thr
Arg Arg Ala Ile Ala Lys Arg Leu Met Ala Arg Thr Ser Ala Met Thr
                            40
Thr Ala Thr Leu Glu Glu Met Gly Arg Arg His Ser Trp Phe Arg Asp
                        55
Leu Ser Ala Glu Glu Arg Ser Trp Ile Ser Ile Val Ala Arg Ser Gly
Ile Asp Gly Phe Val Gln Trp Phe Ala Asp Asp Asp Ala Glu Pro Tyr
Ser Pro Thr Asp Val Phe Asp Val Ala Pro Arg Ser Met Thr Arg Lys
                                105
Ile Ser Leu His Gln Thr Val Glu Leu Val Arg Thr Thr Ile Asp Val
                            120
Val Glu Ala Gln Ile Glu Thr Glu Met Pro Arg Gly Asp Arg Gln Val
                                            140
                        135
Leu Arg Thr Ala Ile Val His Tyr Ser Arg Glu Val Ala Phe Ala Ala
                                        155
                    150
Ala Glu Val Tyr Ala Arg Ala Ala Glu Arg Arg Gly Thr Trp Asp Glu
                                    170
                                                        175
Arg Leu Glu Ser Leu Val Val Asp Ala Val Val Arg Ala Asp Ala Asp
                                185
Glu Gln Leu Ile Ser Arg Ala Ser Thr Leu Gly Trp Arg Pro Gly Ile
                            200
Asn Leu Cys Val Val Val Gly Arg Ala Pro Thr Thr Glu His Glu Leu
                                            220
                       215
His Val Leu Arg Arg Asp Gly Glu Arg Met Gln Met Thr Val Leu
<210> 2167
<211> 325
<212> DNA
<213> Homo sapiens
accggtgcag tttgtgaggg gttggtgacg cccgatcggg aggttcacgc cgtcacggcg
catccacatt atcccgactg gaagatctcg ccaggttacg gacagtggtc gcgtagcgaa
cagatcgaca gtgtgactgt gacgcgagtc agacacttcg tcccgcggcg tcccacggcg
180
attettegag eggtgtetga ggtgaegtte gggttgegte tetgegeegt eegttggega
agcaccgegg egattgtgge tgtgtegeeg geettgetet egaegeggte gegegggteg
tgcgctgatc tcccacagca taccc
325
```

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<210> 2168
<211> 108
<212> PRT
<213> Homo sapiens
<400> 2168
Thr Gly Ala Val Cys Glu Gly Leu Val Thr Pro Asp Arg Glu Val His
                                    10
Ala Val Thr Ala His Pro His Tyr Pro Asp Trp Lys Ile Ser Pro Gly
                                25
Tyr Gly Gln Trp Ser Arg Ser Glu Gln Ile Asp Ser Val Thr Val Thr
                            40
Arg Val Arg His Phe Val Pro Arg Arg Pro Thr Ala Ile Leu Arg Ala
                        55
Val Ser Glu Val Thr Phe Gly Leu Arg Leu Cys Ala Val Arg Trp Arg
                                        75
Ser Thr Ala Ala Ile Val Ala Val Ser Pro Ala Leu Leu Ser Thr Arg
                85
Ser Arg Gly Ser Cys Ala Asp Leu Pro Gln His Thr
                                105
            100
<210> 2169
<211> 309
<212> DNA
<213> Homo sapiens
<400> 2169
gaggacgcct acgtgctcat cacccagggc aagatctcgg cgatcgccga cgtcctgccg
atectggaga aggtegteaa ggeeggeaag eegetgeteg teategeega ggaeategae
ggggaggccc tgtccaccct cgtcgtcaat aagatccgcg gtaccttcag ctcggtggca
180
gtcaaggcgc ccggcttcgg tgaccgccgc aaggcaatgc tgcaggacat cgccaccctc
accggtggtc aggtcgtcgc tcccgaggtt gggctcaagc tcgaccaggt gggcctcgag
gttcagggc
309
<210> 2170
<211> 103
<212> PRT
<213> Homo sapiens
<400> 2170
Glu Asp Ala Tyr Val Leu Ile Thr Gln Gly Lys Ile Ser Ala Ile Ala
                                    10
Asp Val Leu Pro Ile Leu Glu Lys Val Val Lys Ala Gly Lys Pro Leu
                                25
Leu Val Ile Ala Glu Asp Ile Asp Gly Glu Ala Leu Ser Thr Leu Val
                                                45
                            40
Val Asn Lys Ile Arg Gly Thr Phe Ser Ser Val Ala Val Lys Ala Pro
```

```
Gly Phe Gly Asp Arg Arg Lys Ala Met Leu Gln Asp Ile Ala Thr Leu
                    70
                                         75
Thr Gly Gly Gln Val Val Ala Pro Glu Val Gly Leu Lys Leu Asp Gln
                85
Val Gly Leu Glu Val Gln Gly
            100
<210> 2171
<211> 518
<212> DNA
<213> Homo sapiens
<400> 2171
cgcgtaatgt gtattaaggt ccttggtggc tcgcatcgcc gttatgcagc aatcggtgat
atcatcaaag tttcagtgaa ggaagcaatt cctcgcggaa aaattaaaaa aggtaatgtt
cattcagctg tggtagtgcg taccagaaaa ggtgtacgtc gtcccgatgg ttctgttatt
cgttttgatc gcaacgcagc ggttatcttg aatgcaaaca accagccagt cggtacacgt
atctttggcc ctgtaacccg tgagcttcga aatgaaaatt tcatgaagat tgtttcactg
gcgccagaag tactgtaagg aaccgaaaat ggcagcaaaa ataaaacgtg acgatgaagt
360
aattgttatt gccggtaaag ataaaggtaa aactgggaaa gtttctcaag ttttaactaa
cggtaaagta attattgaag gtgtaaatgt tcaaaagaaa caccaaaaac caaaccctca
480
agegggegtg gaaggeggaa teattgaaca gaatgeat
518
<210> 2172
<211> 105
<212> PRT
<213> Homo sapiens
Arg Val Met Cys Ile Lys Val Leu Gly Gly Ser His Arg Arg Tyr Ala
Ala Ile Gly Asp Ile Ile Lys Val Ser Val Lys Glu Ala Ile Pro Arg
                                25
Gly Lys Ile Lys Lys Gly Asn Val His Ser Ala Val Val Arg Thr
                            40
Arg Lys Gly Val Arg Arg Pro Asp Gly Ser Val Ile Arg Phe Asp Arg
Asn Ala Ala Val Ile Leu Asn Ala Asn Asn Gln Pro Val Gly Thr Arg
                    70
                                        75
Ile Phe Gly Pro Val Thr Arg Glu Leu Arg Asn Glu Asn Phe Met Lys
                                    90
Ile Val Ser Leu Ala Pro Glu Val Leu
            100
```

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<210> 2173
<211> 475
<212> DNA
<213> Homo sapiens
<400> 2173
nntggggaag aaatgccggt gcatgcactt tgtgcagcat taggtgcagg ggtgatgcag
cgggcgcgtg ccttttgcgg cggggtttcg agcattcatc tggtgcatgc attttcgcat
gcatttcttg tatcctcgtc atgcgtttct ccccatgcac acacattatc gcctttgcac
ccgcagggac gcatggaata cctcgtgaaa tggaagggat ggtcgcagaa gtacagcaca
tgggaaccgg aggaaaacat cctggatgct cgcttgctcg cagcctttga ggaaagggaa
agagagatgg agetetatgg ccccaaaaag cgtggaccca ageccaaaac etteeteete
aaagcgcagg ccaaggcaaa ggccaaaact tacgagtttc gaagtgactc agccaggggc
atcoggatco cotaccotgg cogetegeco caggacetgg cotecactto coggg
<210> 2174
<211> 158
<212> PRT
<213> Homo sapiens
<400> 2174
Xaa Gly Glu Glu Met Pro Val His Ala Leu Cys Ala Ala Leu Gly Ala
Gly Val Met Gln Arg Ala Arg Ala Phe Cys Gly Gly Val Ser Ser Ile
                                25
His Leu Val His Ala Phe Ser His Ala Phe Leu Val Ser Ser Ser Cys
                            40
Val Ser Pro His Ala His Thr Leu Ser Pro Leu His Pro Gln Gly Arg
Met Glu Tyr Leu Val Lys Trp Lys Gly Trp Ser Gln Lys Tyr Ser Thr
Trp Glu Pro Glu Glu Asn Ile Leu Asp Ala Arg Leu Leu Ala Ala Phe
                                    90
Glu Glu Arg Glu Arg Glu Met Glu Leu Tyr Gly Pro Lys Lys Arg Gly
            100
                                105
Pro Lys Pro Lys Thr Phe Leu Leu Lys Ala Gln Ala Lys Ala Lys Ala
                                                125
                            120
Lys Thr Tyr Glu Phe Arg Ser Asp Ser Ala Arg Gly Ile Arg Ile Pro
                        135
Tyr Pro Gly Arg Ser Pro Gln Asp Leu Ala Ser Thr Ser Arg
                    150
<210> 2175
<211> 462
<212> DNA
<213> Homo sapiens
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<400> 2175
egegacacce tetttggtgg gegeetteet teteegaatt egegaaccet eeagactetg
gcccaggagg ttgtcgagcg tggagccgat atcggcattg ccactgatgg tgacgcagac
cgcctcggta tcattgatga ccaggggcat ttcttgcatc ccaaccagat cctcgtattg
ctgtacacct accttctgga ggacaaggga tggcaggtgc cctgcgtgcg taacctcgcg
acqueccacc tgcttgaccg tgtcgccgag gcccacgggc agacctgtta cgaggtaccg
gteggattta agtgggtgtc gtccaagatg gccgagacca acgccgtcat cggtggtgag
tcctccggtg gtttgaccgt ccaggggcat attgcaggca aggatggtgt ctatgctggc
accotgotgg tggaaatgat cgccaagcgg ggtaagaagc tt
462
<210> 2176
<211> 154
<212> PRT
<213> Homo sapiens
<400> 2176
Arg Asp Thr Leu Phe Gly Gly Arg Leu Pro Ser Pro Asn Ser Arg Thr
Leu Gln Thr Leu Ala Gln Glu Val Val Glu Arg Gly Ala Asp Ile Gly
                                25
Ile Ala Thr Asp Gly Asp Ala Asp Arg Leu Gly Ile Ile Asp Asp Gln
                            40
Gly His Phe Leu His Pro Asn Gln Ile Leu Val Leu Leu Tyr Thr Tyr
Leu Leu Glu Asp Lys Gly Trp Gln Val Pro Cys Val Arg Asn Leu Ala
Thr Thr His Leu Leu Asp Arg Val Ala Glu Ala His Gly Gln Thr Cys
                                    90
                85
Tyr Glu Val Pro Val Gly Phe Lys Trp Val Ser Ser Lys Met Ala Glu
                                105
Thr Asn Ala Val Ile Gly Gly Glu Ser Ser Gly Gly Leu Thr Val Gln
                            120
Gly His Ile Ala Gly Lys Asp Gly Val Tyr Ala Gly Thr Leu Leu Val
Glu Met Ile Ala Lys Arg Gly Lys Lys Leu
                    150
145
<210> 2177
<211> 478
<212> DNA
<213> Homo sapiens
<400> 2177
ctcgagaatc atgacggcga cgacgtgact atctccaccc gtgtgcctcg tgacggcggg
```

```
accttggact cgattgtcgg cgtgctggcc ggggcatcct ggtatcagcg ggagatccac
gacttttttg gtgtgaggtt tgtcggccct ggggcagatg atcgtgccct ccttgtccac
gatgcaccga aaccgcccct gcgcaaggaa gctgtgttgg cgcagcgagc tgacaccgtg
tggccgggtg cggctgacca ggctggctcg aagtccgcga gtcgacgtct gccggtcggc
gttcctgacc ctgagacgtg gcggcgtatc aaagacggcg aggatattcc ggatgccgag
gtcatcgcgg ccatgtctgg ccggcgcccg cgatcagctg cccgtcgaat ggcaagcacg
gegteaggea ggeaggeatg agacattega etateaacet tgaegtegae gegtgeae
478
<210> 2178
<211> 146
<212> PRT
<213> Homo sapiens
<400> 2178
Leu Glu Asn His Asp Gly Asp Asp Val Thr Ile Ser Thr Arg Val Pro
                                    10
Arg Asp Gly Gly Thr Leu Asp Ser Ile Val Gly Val Leu Ala Gly Ala
Ser Trp Tyr Gln Arg Glu Ile His Asp Phe Phe Gly Val Arg Phe Val
                            40
        35
Gly Pro Gly Ala Asp Asp Arg Ala Leu Leu Val His Asp Ala Pro Lys
                        55
Pro Pro Leu Arg Lys Glu Ala Val Leu Ala Gln Arg Ala Asp Thr Val
                    70
                                        75
Trp Pro Gly Ala Ala Asp Gln Ala Gly Ser Lys Ser Ala Ser Arg Arg
                                    90
Leu Pro Val Gly Val Pro Asp Pro Glu Thr Trp Arg Arg Ile Lys Asp
                                105
Gly Glu Asp Ile Pro Asp Ala Glu Val Ile Ala Ala Met Ser Gly Arg
                            120
Arg Pro Arg Ser Ala Ala Arg Arg Met Ala Ser Thr Ala Ser Gly Arg
                        135
                                            140
   130
Gln Ala
145
<210> 2179
<211> 296
<212> DNA
<213> Homo sapiens
<400> 2179
gtgcacttcc gagtggacgt cgagcgtcgc attaacgggg ccggcgcggt gggcgcacac
aagacgtcga tgctgcagga tctggacngc gaccgcgcga tggagatcga cccgctcgtc
tecgtegtte aggagatggg acgeetggee aacgtgeega egeceaeget egatgtegtg
180
```

```
ctcccactga tcaagcaacg tgaattcatg acgaagccgg atgccgtggc ggccgcgcag
gaacgtetgg ctaaagcgge ataaaccage cgccgaaacc agcggcataa cgcggn
296
<210> 2180
<211> 87
<212> PRT
<213> Homo sapiens
<400> 2180
Val His Phe Arg Val Asp Val Glu Arg Arg Ile Asn Gly Ala Gly Ala
Val Gly Ala His Lys Thr Ser Met Leu Gln Asp Leu Asp Xaa Asp Arg
                                25
            20
Ala Met Glu Ile Asp Pro Leu Val Ser Val Val Gln Glu Met Gly Arg
                            40
Leu Ala Asn Val Pro Thr Pro Thr Leu Asp Val Val Leu Pro Leu Ile
                        55
                                            60
Lys Gln Arg Glu Phe Met Thr Lys Pro Asp Ala Val Ala Ala Ala Gln
                                        75
                    70
Glu Arg Leu Ala Lys Ala Ala
                85
<210> 2181
<211> 387
<212> DNA
<213> Homo sapiens
<400> 2181
ngegegeegg gatggateat agtetggete gatgeateae gtgegegeat gegegegetg
togattocog acggcatgat cgcggcactc gaccgtaccg gcaaggcgca aacgcacctc
acgctggcat cgccggaagc gggtgtcgtc agcgaactga acgtgcgcga cggtgcgatg
gtcgcgccgg ggcagacgct cgcgaagatt tcgggcctct cgaagctctg gctgatcgtc
240
gagattccgg aagcgctcgc gctcgatgcg cgtccgggca tgaccgtcga cgcgacgttc
tegggegate egacgeagea tttcaceggg egtateegeg agateetgee gggeateace
accagtagee geacgettea ggegege
387
<210> 2182
<211> 129
<212> PRT
<213> Homo sapiens
<400> 2182
Xaa Ala Pro Gly Trp Ile Ile Val Trp Leu Asp Ala Ser Arg Ala Arg
                                    10
                 5
Met Arg Ala Leu Ser Ile Pro Asp Gly Met Ile Ala Ala Leu Asp Arg
```

```
Thr Gly Lys Ala Gln Thr His Leu Thr Leu Ala Ser Pro Glu Ala Gly
                            40
Val Val Ser Glu Leu Asn Val Arg Asp Gly Ala Met Val Ala Pro Gly
Gln Thr Leu Ala Lys Ile Ser Gly Leu Ser Lys Leu Trp Leu Ile Val
                    70
Glu Ile Pro Glu Ala Leu Ala Leu Asp Ala Arg Pro Gly Met Thr Val
                                    90
Asp Ala Thr Phe Ser Gly Asp Pro Thr Gln His Phe Thr Gly Arg Ile
                                105
Arg Glu Ile Leu Pro Gly Ile Thr Thr Ser Ser Arg Thr Leu Gln Ala
                            120
Arg
<210> 2183
<211> 310
<212> DNA
<213> Homo sapiens
<400> 2183
aagettgaaa aacaaatttg tgcacagtet gataacccaa aaatgactga tggattgget
ctgcattttc caagcaggga ggggtcgggc atggagaatg aaacattctg agaaaagact
taaatgtgga aacttttggt tcaagagggt attctaggag atacaagaaa tatctcctgg
gggcatccaa agggaataac actgtaatct tgagtgatgt atggttccat tgcccgagga
atagggatga aaaccataaa ctcctttggg tgggtattaa cttatcantc aaagttacca
tanataatgg
310
<210> 2184
<211> 100
<212> PRT
<213> Homo sapiens
<400> 2184
Met Val Thr Leu Xaa Asp Lys Leu Ile Pro Thr Gln Arg Ser Leu Trp
                                    10
Phe Ser Ser Leu Phe Leu Gly Gln Trp Asn His Thr Ser Leu Lys Ile
Thr Val Leu Phe Pro Leu Asp Ala Pro Arg Arg Tyr Phe Leu Tyr Leu
Leu Glu Tyr Pro Leu Glu Pro Lys Val Ser Thr Phe Lys Ser Phe Leu
                        55
Arg Met Phe His Ser Pro Cys Pro Thr Pro Pro Cys Leu Glu Asn Ala
                    70
                                        75
Glu Pro Ile His Gln Ser Phe Leu Gly Tyr Gln Thr Val His Lys Phe
                                    90
Val Phe Gln Ala
```

PCT/US00/08621 WO 00/58473

100

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<210> 2185
<211> 723
 <212> DNA
 <213> Homo sapiens
 ngaatatcca tgcagcagct cgtcgacaat tttgacggtg ccatccctga cgatcttgac
 tetettgtga ecetgeeegg agteggtegt aagacegeea atgttgtttt aggtaatgee
  tteggeatee eeggaateae eeeggacaee caegteatge gggtateteg aegtetggge
  tggaccgatg cgactacccc cgccaaggtg gaaaccgacc tggctgagct ttttgacccg
  tetgaatggg tgatgttgtg teacegeete atetggcaeg ggeggeggeg etgteaeteg
  cggcgtcctg cctgcggggt atgcccggtt gccgagtggt gcccgtcctt cggggaaggc
  ccaacggatc ccgaggaggc cgccacgtta gtccgggagc cgcgtcgatg agggggatga
  acgttttcgg cgcggtgatg gccgccttga tgtttgctgg ctgcgggga gatgcgggca
   tageteatea gegtgaaaat geeggaatae eggggtgete geatttgeeg teggggeega
   ttgcgaaaag ttccgggccg gccacagagg gccggcccat gcccgatcac ggcttgcaat
   gccttggtga ggggccgacg atctccatgt ctcgggcgac atcgaggggc gtgaccgtcg
   tgacgatctg ggcgtcgtgg tgtcgaccat gtcgtagtga ggctccgctc attgcgaacg
   720
   cqt
   723
    <210> 2186
    <211> 136
   <212> PRT
    <213> Homo sapiens
    Xaa Ile Ser Met Gln Gln Leu Val Asp Asn Phe Asp Gly Ala Ile Pro
    Asp Asp Leu Asp Ser Leu Val Thr Leu Pro Gly Val Gly Arg Lys Thr
    Ala Asn Val Val Leu Gly Asn Ala Phe Gly Ile Pro Gly Ile Thr Pro
    Asp Thr His Val Met Arg Val Ser Arg Arg Leu Gly Trp Thr Asp Ala
    Thr Thr Pro Ala Lys Val Glu Thr Asp Leu Ala Glu Leu Phe Asp Pro
     Ser Glu Trp Val Met Leu Cys His Arg Leu Ile Trp His Gly Arg Arg
     Arg Cys His Ser Arg Arg Pro Ala Cys Gly Val Cys Pro Val Ala Glu
```

105

100

```
Trp Cys Pro Ser Phe Gly Glu Gly Pro Thr Asp Pro Glu Glu Ala Ala
                                                125
                            120
        115
Thr Leu Val Arg Glu Pro Arg Arg
                        135
    130
<210> 2187
<211> 342
<212> DNA
<213> Homo sapiens
<400> 2187
nnacgcgtga aggatgcgcc ccggtcgacc ggccatccgt cttgcctcgc aggcatccag
eccgccatat getgeaaccg caacaccget ttgccgtcgc atggcatete caetccggat
cgcatcgatc cacgagggct atcggcgcga aagaagttgc cggggcaaaa tcccggcgag
gaaagcccga tggagtggaa gacgctgctc aacgacaccc gcttcggagg ggtcgccagc
ctcgatggga cgcgcggacg gtcggagttc cagaaggacc acgaccggat catcttctcc
gaageettee geaagetggg eegeaagace eaggtgeace eg
342
<210> 2188
<211> 51
<212> PRT
<213> Homo sapiens
<400> 2188
Met Glu Trp Lys Thr Leu Leu Asn Asp Thr Arg Phe Gly Gly Val Ala
                 5
Ser Leu Asp Gly Thr Arg Gly Arg Ser Glu Phe Gln Lys Asp His Asp
                                 25
Arg Ile Ile Phe Ser Glu Ala Phe Arg Lys Leu Gly Arg Lys Thr Gln
                                                 45
                             40
        35
Val His Pro
    50
<210> 2189
<211> 1412
<212> DNA
<213> Homo sapiens
<400> 2189
ntegetteat ggtgegeaat tacgacaacg ccaagtetea gaatgeegag gettacaeeg
cgttcttcca cgcgatgcta gatgccgggg tcaacctgcc gccatcgtgc tttgaggcct
ggttcctctc ggacgctcac gacgacgaag ctttcgaggt tttccgcgcc gccctgccga
gggctgccca ggcggctgcc caggtgatca gtgcctgaca ccgggctgac ttcgcaggtc
```

```
atogaggcaa totgtgcotg gttcgacgcc aacggacgcg atotgccgtg gcgccgaccc
ggcacctccg cgtggggcgt gcttgttagc gaggtcatga gccaacagac cccgatgtcc
cgggtgatcg ggccgtggca cgagtggatg aaccgctggc ccacccctga tgatttggcg
gaggaggact ctggggaagc ggttgccgcg tgggggcgcc tgggttaccc gcgtcgggcc
ttacqcctqc attcctqtqc cgtcacgatc gccaccgagc acgacggggg tgtgcccaac
agtgacgacg agctcgtcgc cctcccgggt attggcgact acaccgcgag cgcagtcgtc
600
tettttgegt ttggeggeeg egecacagtg ettgacacca atgtacgteg eetcateget
agaqcaqaqt ctgggatcgc aaactgtcca acctcggtga cgagggctga gcgggtagtc
gccgacgcgt tggttcccga cgaagacgtc cgagcggcca agtgggcggt ggcgtcgatg
gaattggggg cactggtatg cacggcgcgg tetecgcagt gtgaggtetg eecgateegg
gatggctgca ggtgggtgat cgacggtagg ccggacaatg ccccggcccg tcgaggacag
ccatggaagg gcacggatcg ccagtgccgc ggcgtgatta tggacgtggt gcgcaacagc
cctcacgggg tgaaggtcca gatggctctt tccgcctggc ccgagctcga tcaggcatca
aggtgcctgg aatccttact cgatgacggt ttagtgcacc gacgaggtaa ccttattagc
ctgtgacctg agaaattett ggccccgacc acccaaacag accgagteca gcagtgatge
cgctgggtta tccttagagg cggtcctcaa attggatcag ccaaaccacg tcaccgatca
agacaccatg agcacaacac ccaaacagcc gcgcacggcg acagctgccc gacgccgaca
1260
cattgtcgac catctgcgtt ctttggggca ctcggagtcc atcggagatc tttaccaact.
gtteggtgte tetacatega egattegeeg egatgtegat gecetetegg atgaateeaa
1380
gatctggaag atttccgggg gagacgtcat ga
1412
<210> 2190
<211> 292
<212> PRT
<213> Homo sapiens
<400> 2190
Ser Val Pro Asp Thr Gly Leu Thr Ser Gln Val Ile Glu Ala Ile Cys
                                    10
Ala Trp Phe Asp Ala Asn Gly Arg Asp Leu Pro Trp Arg Arg Pro Gly
Thr Ser Ala Trp Gly Val Leu Val Ser Glu Val Met Ser Gln Gln Thr
        35
Pro Met Ser Arg Val Ile Gly Pro Trp His Glu Trp Met Asn Arg Trp
```

```
55
Pro Thr Pro Asp Asp Leu Ala Glu Glu Asp Ser Gly Glu Ala Val Ala
                    70
Ala Trp Gly Arg Leu Gly Tyr Pro Arg Arg Ala Leu Arg Leu His Ser
                                    90
                85
Cys Ala Val Thr Ile Ala Thr Glu His Asp Gly Gly Val Pro Asn Ser
                                                    110
                                105
            100
Asp Asp Glu Leu Val Ala Leu Pro Gly Ile Gly Asp Tyr Thr Ala Ser
                            120
        115
Ala Val Val Ser Phe Ala Phe Gly Gly Arg Ala Thr Val Leu Asp Thr
                                            140
                        135
Asn Val Arg Arg Leu Ile Ala Arg Ala Glu Ser Gly Ile Ala Asn Cys
                    150
Pro Thr Ser Val Thr Arg Ala Glu Arg Val Val Ala Asp Ala Leu Val
                                    170
Pro Asp Glu Asp Val Arg Ala Ala Lys Trp Ala Val Ala Ser Met Glu
                                185
Leu Gly Ala Leu Val Cys Thr Ala Arg Ser Pro Gln Cys Glu Val Cys
                                                 205
                            200
Pro Ile Arg Asp Gly Cys Arg Trp Val Ile Asp Gly Arg Pro Asp Asn
                                            220
                        215
Ala Pro Ala Arg Arg Gly Gln Pro Trp Lys Gly Thr Asp Arg Gln Cys
                                         235
                     230
Arg Gly Val Ile Met Asp Val Val Arg Asn Ser Pro His Gly Val Lys
                                    250
                 245
Val Gln Met Ala Leu Ser Ala Trp Pro Glu Leu Asp Gln Ala Ser Arg
                                265
Cys Leu Glu Ser Leu Leu Asp Asp Gly Leu Val His Arg Arg Gly Asn
                             280
                                                 285
Leu Ile Ser Leu
    290
<210> 2191
<211> 502
<212> DNA
<213> Homo sapiens
<400> 2191
nnacgcgtcg agaatctcta ctcctgcccg aacaacgtcc ggcttcgtca ggctcacgat
gactcccttg acgacgacac catttccggg ggtagcccac attggtgctg cctcatggac
tacattgaat coogttcaat cotgaacggo gttcaggacg totocagtot oggaaggaco
agagtattgc tgaatctagc cgacatgacc gaacgcggcc tgagggggga gtccattacc
 cgcgaggagg ccctcgagat tcttcgcagc agtgatgatg agctcatgtc aatcatcgcc
geegeeggaa aagtgegteg ceaettttte gataaceggg ttegeeteaa etaeetggte
aacetcaagt eeggeetgtg teeegaagae tgeteetatt getegeageg tetgggateg
 cgtgccgaga tcacgaaata ctcctgggcc gatccgcaga aggtacacga cgccgtcgag
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gctgggattg ccggtggtgc ac
502
<210> 2192
<211> 104
<212> PRT
<213> Homo sapiens
<400> 2192
Leu Asn Leu Ala Asp Met Thr Glu Arg Gly Leu Arg Gly Glu Ser Ile
                                    10
                 5
Thr Arg Glu Glu Ala Leu Glu Ile Leu Arg Ser Ser Asp Asp Glu Leu
Met Ser Ile Ile Ala Ala Ala Gly Lys Val Arg Arg His Phe Phe Asp
Asn Arg Val Arg Leu Asn Tyr Leu Val Asn Leu Lys Ser Gly Leu Cys
Pro Glu Asp Cys Ser Tyr Cys Ser Gln Arg Leu Gly Ser Arg Ala Glu
Ile Thr Lys Tyr Ser Trp Ala Asp Pro Gln Lys Val His Asp Ala Val
                85
Glu Ala Gly Ile Ala Gly Gly Ala
            100
<210> 2193
<211> 321
<212> DNA
<213> Homo sapiens
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ccatggggaa tgcagagcac ggacagtcac acagactgtc ctctctggcc ttctggaccc
aacatactcc tcttgccaac tgggtattac tggaccttac tgggccttac tggacccaac
atactcctct tgccaactgg ggatttaaaa attttaaaag cccctttatc tccctccaca
agteatgtac tgccaacagg gacacactgt tttctttgga aaccetgctg tgtgcccaga
cagaggteec actgeectgg gacageteec ttgeetanag gggaaggagg gtgtgtgtge
tgtgtgtgtt taggttgggg a
321
<210> 2194
<211> 106
<212> PRT
<213> Homo sapiens
<400> 2194
Met Gly Asn Ala Glu His Gly Gln Ser His Arg Leu Ser Ser Leu Ala
                                    10
Phe Trp Thr Gln His Thr Pro Leu Ala Asn Trp Val Leu Leu Asp Leu
                                25
Thr Gly Pro Tyr Trp Thr Gln His Thr Pro Lèu Ala Asn Trp Gly Phe
```

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40
Lys Asn Phe Lys Ser Pro Phe Ile Ser Leu His Lys Ser Cys Thr Ala
                        55
Asn Arg Asp Thr Leu Phe Ser Leu Glu Thr Leu Leu Cys Ala Gln Thr
                                        75
                    70
Glu Val Pro Leu Pro Trp Asp Ser Ser Leu Ala Xaa Arg Gly Arg Arg
                                    90
                85
Val Cys Val Leu Cys Val Phe Arg Leu Gly
            100
<210> 2195
<211> 504
<212> DNA
<213> Homo sapiens
<400> 2195
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ctgggtgtgc gtctggtact ggtccacggt tcgcgcccgc agatcgacag ccgccttgag
gcacgaggcc tggtgccgta ttaccacaag ggcatgcgtg tcaccgatgc atcaacgctc
gaatgegtga tegatgetgt egggeaactg egeattgega ttgaagegeg ettgtegatg
gacatggcgt cttcgccaat gcagggttcg cgtctgcgcg tagccagcgg caacctggtc
actgegegge cgateggegt getegaeggt gtggatttte accatacegg egaagtgege
cgggtggacc gcaagggcat caaccgcctg ctcgatgagc gctcgattgt gctgctgtcg
cccttgggtt actcgcccac cggt
504
<210> 2196
<211> 168
<212> PRT
<213> Homo sapiens
<400> 2196
Xaa Ala Ser Pro Tyr Ile Asn Ala His Arg Asp Cys Thr Phe Val Val
Met Leu Pro Gly Asp Gly Val Ala His Pro Asn Phe Gly Asn Ile Val
                                25
            20
His Asp Leu Val Leu Leu His Ser Leu Gly Val Arg Leu Val Leu Val
                            40
His Gly Ser Arg Pro Gln Ile Asp Ser Arg Leu Glu Ala Arg Gly Leu
                                            60
                        55
Val Pro Tyr Tyr His Lys Gly Met Arg Val Thr Asp Ala Ser Thr Leu
                                        75
Glu Cys Val Ile Asp Ala Val Gly Gln Leu Arg Ile Ala Ile Glu Ala
                                    90
Arg Leu Ser Met Asp Met Ala Ser Ser Pro Mèt Gln Gly Ser Arg Leu
```

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105
            100
Arg Val Ala Ser Gly Asn Leu Val Thr Ala Arg Pro Ile Gly Val Leu
                            120
                                                125
Asp Gly Val Asp Phe His His Thr Gly Glu Val Arg Arg Val Asp Arg
                        135
    130
Lys Gly Ile Asn Arg Leu Leu Asp Glu Arg Ser Ile Val Leu Leu Ser
                    150
                                         155
145
Pro Leu Gly Tyr Ser Pro Thr Gly
                165
<210> 2197
<211> 351
<212> DNA
<213> Homo sapiens
<400> 2197
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ttagattccg cagtgcagca catccacggt gctactcacg ataaactgtc cggtgctgtt
ccgaaacgct acgatggtcg ggatgtcttg gcaggcgagg acccgaatgc accgttgctg
cttgtgccta gcccggctgg tgcagtgttt agtcaaaata aggcacaagc ctggtccaat
gaagaccaca ttgtttttgc ctgtgggcgc tatgaaggta ttgatcaacg c
351
<210> 2198
<211> 117
<212> PRT
<213> Homo sapiens
<400> 2198
Thr Ser Pro Ser Thr Ile Arg Phe Pro Glu Ala Gly Pro Gly Met Val
1
                                    10
Met Lys Pro Glu Leu Trp Gly Pro Ala Leu Asp Glu Ile Ala Ala Gly
Lys Arg Ala Gly Gly Ala Glu Gln Leu Asp Ser Ala Val Gln His Ile
                            40
His Gly Ala Thr His Asp Lys Leu Ser Gly Ala Val Pro Lys Arg Tyr
                                            60
                        55
Asp Gly Arg Asp Val Leu Ala Gly Glu Asp Pro Asn Ala Pro Leu Leu
                                        75
Leu Val Pro Ser Pro Ala Gly Ala Val Phe Ser Gln Asn Lys Ala Gln
                                    90
Ala Trp Ser Asn Glu Asp His Ile Val Phe Ala Cys Gly Arg Tyr Glu
                                105
            100
Gly Ile Asp Gln Arg
        115
<210> 2199
<211> 457
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<212> DNA
<213> Homo sapiens
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ggagcccggg agaagggctg gaaggaggg actggacgtg cggagaattc ccccctaaaa
ggcagaagcc cccgcccca ccctccgagc tccgttcggg cagagegcct gcctgcctgc
180
cgttgctggg ggcgcccacc tcgcccagcc atgccaggcc cggccaccga cgcggggaag
240
atccctttct gcgacgccaa ggaagaaatc cgtgccgggc tcgaaagctc tgagggcggc
300
ggeggeeegg agaggeeagg egegegeggg eageggeaga acategtetg gaggaatgte
gtcctgatga gcttgctcca cttgggggcc gtgtactccc tggtgctcat ccccaaagcc
aagccactca ctctgctctg gggtaagtcc cgccggc
457
<210> 2200
<211> 152
<212> PRT
<213> Homo sapiens
<400> 2200
Arg Arg Pro Pro Arg Ser Ala Ser Leu Gly His Ala Lys Thr Leu
Gly Lys Ser Ala Gly Ala Arg Glu Lys Gly Trp Lys Glu Gly Thr Gly
Arg Ala Glu Asn Ser Pro Leu Lys Gly Arg Ser Pro Arg Pro His Pro
                             40
Pro Ser Ser Val Arg Ala Glu Arg Leu Pro Ala Cys Arg Cys Trp Gly
                                             60
                        55
Arg Pro Pro Arg Pro Ala Met Pro Gly Pro Ala Thr Asp Ala Gly Lys
                     70
                                         75
Ile Pro Phe Cys Asp Ala Lys Glu Glu Ile Arg Ala Gly Leu Glu Ser
Ser Glu Gly Gly Gly Pro Glu Arg Pro Gly Ala Arg Gly Gln Arg
                                 105
Gln Asn Ile Val Trp Arg Asn Val Val Leu Met Ser Leu Leu His Leu
                                                 125
                             120
        115
Gly Ala Val Tyr Ser Leu Val Leu Ile Pro Lys Ala Lys Pro Leu Thr
                                             140
                         135
Leu Leu Trp Gly Lys Ser Arg Arg
145
                     150
<210> 2201
<211> 336
<212> DNA
<213> Homo sapiens
<400> 2201
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agtactgcga tggacagcta tgtcgtggat ggtggtcgca aattacatgt ttgtggtaac
aaccctqatt gcgatggtta tgaagtcgaa gaaggcgaat tcaagatcaa gggttatgat
ggtccgacta tcccatgcga taaatgtgat ggtgagatgc agcttaaaac gggtcgtttt
ggtccatatt tcgcatgtac tagctgtgac aatactcgta aggtactcaa gagtggtcaa
cctqctccqc cacqtgtaga cccaatcaaa atggagcatc tacgttcaac gaagcatgat
gatttetteg tettaegtga gggegetget ggttta
336
<210> 2202
<211> 112
<212> PRT
<213> Homo sapiens
<400> 2202
Ser Thr Ala Met Asp Ser Tyr Val Val Asp Gly Gly Arg Lys Leu His
Val Cys Gly Asn Asn Pro Asp Cys Asp Gly Tyr Glu Val Glu Glu Gly
Glu Phe Lys Ile Lys Gly Tyr Asp Gly Pro Thr Ile Pro Cys Asp Lys
                            40
Cys Asp Gly Glu Met Gln Leu Lys Thr Gly Arg Phe Gly Pro Tyr Phe
    50
                        55
Ala Cys Thr Ser Cys Asp Asn Thr Arg Lys Val Leu Lys Ser Gly Gln
                    70
                                        75
Pro Ala Pro Pro Arg Val Asp Pro Ile Lys Met Glu His Leu Arg Ser
                                    90
Thr Lys His Asp Asp Phe Phe Val Leu Arg Glu Gly Ala Ala Gly Leu
                                105
            100
<210> 2203
<211> 273
<212> DNA
<213> Homo sapiens
<400> 2203
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gtgatggaaa actcaacaga ctggttcaga tettggeeeg gageeeagag geacegggga
ccccagggc tgtttctccc tggccacacc agtaccccac ttccaaatgc cctgtaggtg
accaccagge cacacaggee egtetgaggg gecacagget gtgcaccatg ggacgcagge
ctgtccctgc ctccctccga tgtcctgatg gtg
<210> 2204
<211> 88
<212> PRT
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<213> Homo sapiens <400> 2204 Met Gln Ser Gln Pro Gly Trp Glu Ala Val Gln Thr Ala Pro Asp Leu 5 Gly Arg Asp Gly Lys Leu Asn Arg Leu Val Gln Ile Leu Ala Arg Ser 25 20 Pro Glu Ala Pro Gly Thr Pro Arg Ala Val Ser Pro Trp Pro His Gln 45 40 35 Tyr Pro Thr Ser Lys Cys Pro Val Gly Asp His Gln Ala Thr Gln Ala 60 Arg Leu Arg Gly His Arg Leu Cys Thr Met Gly Arg Arg Pro Val Pro 75 70 65 Ala Ser Leu Arg Cys Pro Asp Gly <210> 2205 <211> 387 <212> DNA <213> Homo sapiens <400> 2205 gnnnnnggng nnnnactggt gtgcatggtt aaaatcctgc aagctactgg gttgccacag catctgtccc actttgtgtt ctgcaaatac agcttctggg atcaacagga gccggtgatt gtcgctcctg aagtggacac ctcctcctct tccgtcagca aggagccgca ctgcatggtt gtctttgatc attgcaatga gttttctgtt aacatcaccg aagactttat cgagcatctt tecgaaggag cattggcaat tgaagtatat ggacataaaa taaacgatee eeggaaaaac cccgccctgt gggatttggg aatcatccaa gcaaagacac gtagtcttcg ggacagatgg agtgaagtgc ccaggaaatt ggaattc 387 <210> 2206 <211> 129 <212> PRT <213> Homo sapiens <400> 2206 Xaa Xaa Gly Xaa Xaa Leu Val Cys Met Val Lys Ile Leu Gln Ala Thr 10 5 Gly Leu Pro Gln His Leu Ser His Phe Val Phe Cys Lys Tyr Ser Phe 25 20 Trp Asp Gln Gln Glu Pro Val Ile Val Ala Pro Glu Val Asp Thr Ser 40 Ser Ser Ser Val Ser Lys Glu Pro His Cys Met Val Val Phe Asp His 60 Cys Asn Glu Phe Ser Val Asn Ile Thr Glu Asp Phe Ile Glu His Leu

Ser Glu Gly Ala Leu Ala Ile Glu Val Tyr Gly His Lys Ile Asn Asp

70

```
90
Pro Arq Lys Asn Pro Ala Leu Trp Asp Leu Gly Ile Ile Gln Ala Lys
                                105
Thr Arg Ser Leu Arg Asp Arg Trp Ser Glu Val Pro Arg Lys Leu Glu
                                                 125
                             120
        115
Phe
<210> 2207
<211> 667
<212> DNA
<213> Homo sapiens
<400> 2207
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egegagetet ecageetgea eteaetgete tgggaggeeg teageeaget ggageagage
atagtateca aactgggace ectgeetegg atectgaggg aegtecacae ageactgage
accecaggta gegggeaget cecagggace aatgacetgg cetecacace gggetetgge
agcagcagca totcagctgg gctgcagaag atggtgattg agaacgatct ttccggtctg
ataqatttca cccggttacc gtctccaacc cccgaaaaca aggacttgtt ttttgtcaca
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cctqatcttc agatggccaa cggtggcaag agcctctcca tggtggacct ccaggacgcc
cgcacgctgg atggggaggc aggctccccg gcgggccccg acgtcctccc cacagatggg
caggeegetg cageteaget ggtggeeggg tggeeggeee gggeaacece agtgaacetg
gcagggctgg ccacggtgcg gcgggcaggc cagacaccaa ccacaccagg cacctccgag
660
ggcgcgc
667
<210> 2208
<211> 222
<212> PRT
<213> Homo sapiens
<400> 2208
Ile Ser Asn Pro Glu Thr Leu Ser Asn Thr Ala Gly Phe Glu Gly Tyr
                                    10
Ile Asp Leu Gly Arg Glu Leu Ser Ser Leu His Ser Leu Leu Trp Glu
            20
Ala Val Ser Gln Leu Glu Gln Ser Ile Val Ser Lys Leu Gly Pro Leu
Pro Arg Ile Leu Arg Asp Val His Thr Ala Leu Ser Thr Pro Gly Ser
                        55
Gly Gln Leu Pro Gly Thr Asn Asp Leu Ala Sèr Thr Pro Gly Ser Gly
```

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70
Ser Ser Ser Ile Ser Ala Gly Leu Gln Lys Met Val Ile Glu Asn Asp
                                   90
Leu Ser Gly Leu Ile Asp Phe Thr Arg Leu Pro Ser Pro Thr Pro Glu
                                                  110
                               105
            100
Asn Lys Asp Leu Phe Phe Val Thr Arg Ser Ser Gly Val Gln Pro Ser
                                               125
                           120
Pro Ala Arg Ser Ser Ser Tyr Ser Glu Ala Asn Glu Pro Asp Leu Gln
                                            140
                        135
Met Ala Asn Gly Gly Lys Ser Leu Ser Met Val Asp Leu Gln Asp Ala
                                       155
                    150
Arg Thr Leu Asp Gly Glu Ala Gly Ser Pro Ala Gly Pro Asp Val Leu
                                    170
               165
Pro Thr Asp Gly Gln Ala Ala Ala Gln Leu Val Ala Gly Trp Pro
                               185
Ala Arg Ala Thr Pro Val Asn Leu Ala Gly Leu Ala Thr Val Arg Arg
                           200
Ala Gly Gln Thr Pro Thr Thr Pro Gly Thr Ser Glu Gly Ala
                        215
    210
<210> 2209
<211> 353
<212> DNA
<213> Homo sapiens
<400> 2209
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agagaaggcc atgagagaga tagcactggg acagatggtg tcagcagagg ggactccaga
ccacagcaga agtgaccaag ctgtagcttc cttagatggc cccaagggtg ggaggcttca
cacagcagag cctgggtctg gaggcacctt ggggatgttt ttccccatta ggcccctgag
ctctatggaa gcacttaact gcctgttccc cgcttattct gtgtttaaac caaggaaaca
acatgectgg ggtetgaaat eetggattea aateetgaet gtgttgtgtg ett
<210> 2210
<211> 94
<212> PRT
<213> Homo sapiens
<400> 2210
Met Arg Glu Ile Ala Leu Gly Gln Met Val Ser Ala Glu Gly Thr Pro
                                    10
Asp His Ser Arg Ser Asp Gln Ala Val Ala Ser Leu Asp Gly Pro Lys
                                25
Gly Gly Arg Leu His Thr Ala Glu Pro Gly Ser Gly Gly Thr Leu Gly
                            40
Met Phe Phe Pro Ile Arg Pro Leu Ser Ser Met Glu Ala Leu Asn Cys
Leu Phe Pro Ala Tyr Ser Val Phe Lys Pro Arg Lys Gln His Ala Trp
```

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80
                                         75
                     70
Gly Leu Lys Ser Trp Ile Gln Ile Leu Thr Val Leu Cys Ala
                85
<210> 2211
<211> 493
<212> DNA
<213> Homo sapiens
<400> 2211
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cactgtaccc tgggactgca cagagggaaa cgattaccaa acccagagac ggggaccgga
aggaaggagg ggaaggggat ggatccatgt actttggggt tggagaaatg ggggacagca
agtotoctca acccaaatac agccccctg ggaggetcct gccccgtctc tgtggatagt
gagcccagct gcaagggcgg cctgccaggg acaaacccac caaaaggaaa gatgttgtag
aaccaaagag aggctccctg aaagaggcgt ctcccggggc ctccaagccc gggagcgccc
ggcggacagg gggcagtggc caagtctgtg cggaccctga ccgcctcaga gaacgagagc
atgcgcaaag tcatgcccat caccaagtcc agcagaggcg ccggctggag gcgaccagag
ctgtcatccc ggg
493
<210> 2212
<211> 126
<212> PRT
<213> Homo sapiens
<400> 2212
Met Gly Met Thr Leu Arg Met Leu Ser Phe Ser Glu Ala Val Arg Val
Arg Thr Asp Leu Ala Thr Ala Pro Cys Pro Pro Gly Ala Pro Gly Leu
Gly Gly Pro Gly Arg Arg Leu Phe Gln Gly Ala Ser Leu Trp Phe Tyr
                            40
Asn Ile Phe Pro Phe Gly Gly Phe Val Pro Gly Arg Pro Pro Leu Gln
                        55
Leu Gly Ser Leu Ser Thr Glu Thr Gly Gln Glu Pro Pro Arg Gly Ala
Val Phe Gly Leu Arg Arg Leu Ala Val Pro His Phe Ser Asn Pro Lys
                                    90
Val His Gly Ser Ile Pro Phe Pro Ser Phe Leu Pro Val Pro Val Ser
                                105
Gly Phe Gly Asn Arg Phe Pro Leu Cys Ser Pro Arg Val Gln
                                                125
        115
                            120
<210> 2213
<211> 327
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<212> DNA
<213> Homo sapiens
<400> 2213
acgegteega eeggeagtte eggeagetge gggaaagetg egatgegete geegageatt
geeggtgett egacacactg ggttatateg ceetcaaage acaggtetae gaaggttetg
120
acggaaggcc cggccaatcc gatcgcggcc tcggcgctgc gcatcatccg ggcgcgcgtg
tegeagetet ggggcaegte getgeteege aacggaeggg eggaacagag tgtggtggag
ategeceggt tggtegaege gateaegtea egggaegagg aageegeeea gegtgeaetg
ctcgaccaca atcgcagcgc gttggaa
327
<210> 2214
<211> 95
<212> PRT
<213> Homo sapiens
<400> 2214
Met Arg Ser Pro Ser Ile Ala Gly Ala Ser Thr His Trp Val Ile Ser
Pro Ser Lys His Arg Ser Thr Lys Val Leu Thr Glu Gly Pro Ala Asn
                                25
Pro Ile Ala Ala Ser Ala Leu Arg Ile Ile Arg Ala Arg Val Ser Gln
                            40
Leu Trp Gly Thr Ser Leu Leu Arg Asn Gly Arg Ala Glu Gln Ser Val
                        55
                                             60
Val Glu Ile Ala Arg Leu Val Asp Ala Ile Thr Ser Arg Asp Glu Glu
                                        75
                    70
Ala Ala Gln Arg Ala Leu Leu Asp His Asn Arg Ser Ala Leu Glu
                                    90
                                                         95
                85
<210> 2215
<211> 430
<212> DNA
<213> Homo sapiens
<400> 2215
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cegaagetgg aaaceettaa gaaggagge gegteeggte agaacaagat cacceagtae
accepttace teactetegt gettggeetg ttgcaggeaa eggeettegt caegettgee
accteeggee gtetatteae enntgeaget ntgecagteg tetactecae eteggtette
gaagtegteg teatgateet gaetatgaeg geeggtaega eeategteat gtggatgggt.
gageteatea eegacegegg tateggeaac ggtatgtega teatgatttt caeteagatt
360
```

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geggegegtt teeetgaete getgtggtet atcaaggteg etegaaatgg egeeggteag
420
gctcacgcgt
430
<210> 2216
<211> 143
<212> PRT
<213> Homo sapiens
<400> 2216
Leu Gly Ile Met Pro Tyr Ile Thr Ala Ser Ile Ile Leu Gln Leu Leu
                 5
                                    10
Thr Val Val Ile Pro Lys Leu Glu Thr Leu Lys Lys Glu Gly Ala Ser
                                25
Gly Gln Asn Lys Ile Thr Gln Tyr Thr Arg Tyr Leu Thr Leu Val Leu
                            40
Gly Leu Leu Gln Ala Thr Ala Phe Val Thr Leu Ala Thr Ser Gly Arg
                        55
Leu Phe Thr Xaa Ala Ala Xaa Pro Val Val Tyr Ser Thr Ser Val Phe
                    70
Glu Val Val Wat Ile Leu Thr Met Thr Ala Gly Thr Thr Ile Val
                                    90
Met Trp Met Gly Glu Leu Ile Thr Asp Arg Gly Ile Gly Asn Gly Met
                                105
            100
Ser Ile Met Ile Phe Thr Gln Ile Ala Ala Arg Phe Pro Asp Ser Leu
                                                125
                            120
Trp Ser Ile Lys Val Ala Arg Asn Gly Ala Gly Gln Ala His Ala
                        135
<210> 2217
<211> 444
<212> DNA
<213> Homo sapiens
<400> 2217
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atgacgtggc tcgatgacga cgtgggcgcc gacctgttga atcaggctga ttccatggac
catgecetgg aggecacegt eccaggtegg gteaceaege eggaegeeca agteateeag
acctgtgccg tgttgcgtga ccttgctcgc gtggcagtca gccagctggg ccgaaatgac
gaggactota gggaaccagt cgatgcggag agagtacagg ctcaagcgnc gatgcgggag
gttttcgaga ccgccgaacg catggtgggg ctggccgccg ccgacgtggt gtgggtctct
gagtctgaga agggataccg cagcattcac gtcgctccgc tgagtgttgg cggcttgcta
cgagagaatg tctttgctca gtcc
444
<210> 2218
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<211> 148
<212> PRT
<213> Homo sapiens
<400> 2218
Thr Arg Ala Ala Ser Lys Asp Leu Ser Pro Ala Ile Val Thr Thr
                                    10
1
Ala Lys Arg Ala Met Thr Trp Leu Asp Asp Asp Val Gly Ala Asp Leu
                                25
Leu Asn Gln Ala Asp Ser Met Asp His Ala Leu Glu Ala Thr Val Pro
                            40
Gly Arg Val Thr Thr Pro Asp Ala Gln Val Ile Gln Thr Cys Ala Val
Leu Arg Asp Leu Ala Arg Val Ala Val Ser Gln Leu Gly Arg Asn Asp
                    70
Glu Asp Ser Arg Glu Pro Val Asp Ala Glu Arg Val Gln Ala Gln Ala
                85
Xaa Met Arg Glu Val Phe Glu Thr Ala Glu Arg Met Val Gly Leu Ala
                                105
Ala Ala Asp Val Val Trp Val Ser Glu Ser Glu Lys Gly Tyr Arg Ser
                            120
Ile His Val Ala Pro Leu Ser Val Gly Gly Leu Leu Arg Glu Asn Val
                        135
Phe Ala Gln Ser
145
<210> 2219
<211> 688
<212> DNA
<213> Homo sapiens
<400> 2219
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ggcattacga atatggcgtg gatgtggcta tggttcgacg agcccggaaa ccgttgggag
120
tggtcgatcc ttttccccgc tgggtggctg accagcgctt tggtcagtca ggggttcggt
ggaatgttcc atagtgtgca gattgcgcgt catgtcagca gttaccacgg catcatggtc
getttegege tegttgggta eggatggett gegatgeaca acttgegtea ecetgatgag
cgctattcga ttcgctcggc cttgataatc ggcatcggca tccagttcac ctgggaggca
360
gtgctgatga tctcgggtat caggccgttg acatggcgcc cgcttgttat cgattctctc
atcgagacga atctcggcgc tccgttcatg ttgctcattg tgaaagcttg gcgcgcgcca
cccgaaggaa ttcctggctc taccagtccg cgcccgaccg cccgtggcac agcgcgagtc
tatatgaggg atgatettgt ttetegaege ettetaeage gteettgaga geetetgega
gcgaagggcg cgggtgtagg tctccccggg gctcgttgtg gtccctcctc tgcgtgacgc
660
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agagccgtgt gatgaggcga agtcatga
<210> 2220
<211> 189
<212> PRT
<213> Homo sapiens
<400> 2220
Met Ser Val Leu Pro Leu Glu Ile Trp Leu Ser Phe Ser Tyr Gly Ile
 1
Thr Asn Met Ala Trp Met Trp Leu Trp Phe Asp Glu Pro Gly Asn Arg
                                25
Trp Glu Trp Ser Ile Leu Phe Pro Ala Gly Trp Leu Thr Ser Ala Leu
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Val Ser Gln Gly Phe Gly Gly Met Phe His Ser Val Gln Ile Ala Arg
His Val Ser Ser Tyr His Gly Ile Met Val Ala Phe Ala Leu Val Gly
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Tyr Gly Trp Leu Ala Met His Asn Leu Arg His Pro Asp Glu Arg Tyr
Ser Ile Arg Ser Ala Leu Ile Ile Gly Ile Gly Ile Gln Phe Thr Trp
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Glu Ala Val Leu Met Ile Ser Gly Ile Arg Pro Leu Thr Trp Arg Pro
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Leu Val Ile Asp Ser Leu Ile Glu Thr Asn Leu Gly Ala Pro Phe Met
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Leu Leu Ile Val Lys Ala Trp Arg Ala Pro Pro Glu Gly Ile Pro Gly
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Asp Met Asp Thr Glu Leu Asp Ala Leu Gln Gln Arg Leu Ser Lys Thr
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Lys Thr Ile Lys Gln Gly Met Met Gln Glu Leu Leu Thr Gly Lys Thr
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Arg Leu Val
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Ala Met Gly His Leu Gln Ala Tyr Ile Ser Ala Gly Arg Ala Ala Leu
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Tyr Lys Leu Asp Cys Glu Leu Pro Ala Leu Ser Arg Pro Leu Asp Lys
                                             60
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Cys Ile Phe Thr Gly Val Pro Pro Ile Asp Ser Gly Ile Val His Asn
                                         75
                    70
Asn Val Ser Arg Leu Ser Asn Gln Arg Ser Ile Phe His Tyr Ala Thr
Asp Ala Gly Leu Thr Thr Ala Ala Ala
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                        55
Gly His Thr Gly Trp Val Val Ser Asp Glu Leu Gly Pro Val Gly Asn
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Glu Asp Tyr Cys Ala Val Ile Ala Arg Met Glu Asn Gly Val Met Cys
Thr Leu Glu Ser Ser Arg Val Ser Val Gly Pro Arg Ala Glu Tyr Ile
                                105
Val Glu Ile Tyr Gly Thr Asp Gly Ser Ile Arg Trp Asn Phe Glu Asp
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Leu Asn His Leu Gln Val Cys Leu Gly Arg Asn Asn Arg Ala Leu Gln
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                                            140
Gly Tyr Val Asn Cys Met Ala Gly Pro Asp Phe Pro Glu Phe Met Arg
                    150
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Phe Gln Pro Gly Ala Gly Thr Ser Met Gly Phe Asp Asp Met Lys Val
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Val Glu Ala Ala Lys Phe Val Arg Gly Val Leu Asp Gly Gln Gln Tyr
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Gly Pro Ser Val Ala Asp Gly Trp Ala Ser Ala Glu Val Asn Asp Ala
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Ile Val Ala Ser Cys Gly Gly Pro Cys Leu Ala
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Val Arg Thr Leu Arg Thr His Gln Ala Leu Trp Cys Lys Ser Pro Val
Lys Pro Gly Ile Pro Tyr Lys Gln Leu Thr Val Gly Val Pro Lys Glu
Ile Phe Gln Asn Glu Lys Arg Val Ala Leu Ser Pro Ala Gly Val Gln
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Pro Ala Cys Leu Ala Leu Gly Gly Cys His Pro Gln Ser Pro Leu Leu
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Gly Pro Ala Leu Gly Thr Arg His Arg Trp Ile Gln Cys Ile Leu Ser
Pro Leu Arg Ser Cys Ala Ala Ile Ser Ser Phe Ser Gly Tyr Arg Ala
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His His Val Pro Gly Thr Glu Pro Tyr Leu Asp Leu Leu Gln Pro Ser
Gln Trp His Cys Glu Ala Ser Val Val Leu Gln Met Arg Lys Leu Arg
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Phe Val Ala Ile Thr Asp Lys Gln Met Thr Leu Asn Gly Ala Gly His
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Val Ile Cys His Arg Tyr Met His Arg Thr Met Gln Thr Ser Gln Ser
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Pro Leu Ser Gln Thr Arg Leu Thr Ile Arg Asp Met Gln Thr Leu Ala
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Gly Leu Gly Leu Phe Pro Ile Gly Asp Ser Leu Val Pro Pro Trp Pro
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                        135
Leu Met Pro Thr Ala Val Trp Lys Ala Gly Sèr Leu Leu Arg Arg Gln
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Gly Asp Ile Phe Ser His Gln Leu Ser Phe Phe Tyr Ser Phe Leu Asp
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Val Tyr Glu Lys Ile Met Glu His Ala Gly Lys Asn Gln Val Leu Val
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Phe Val His Ser Arg Lys Glu Thr Gly Lys Thr Ala Arg Ala Ile Arg
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Asp Met Cys Leu Glu Lys Asp Thr Leu Gly Leu Phe Leu Arg Glu Gly
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Ser Ala Ser Thr Glu Val Leu Arg Thr Glu Ala Glu Gln Cys Lys Asn
           325 330
Leu Glu Leu Lys Asp Leu Leu Pro Tyr Gly Phe Ala Ile His His Ala
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													350		
			340	••- •	•	3	m1	345	17-1	C1.,	y en	Len		Δla	Asp
Gly	Met		Arg	vaı	Asp	Arg	360	ren	Val	GIU	waħ	365	£ 11C	,,,,,	·
•	His	355	~1-	17-1	T 011	V-1		Thr	Δla	Thr	Leu		Tro	Glv	Val
гÀг		TIE	GIII	vaı	Dea	375	Ser	1111	AIU	• • • •	380			2	
7.50	370 Leu	D∽o	7 T =	uie	Thr		Tle	Tle	Lvs	Glv		Gln	Val	Tyr	Ser
385	Deu	PIO	Ala	1113	390				-,-	395				-	400
בסכ	Glu	T.VC	GIV	Ara		Thr	Glu	Leu	Glv		Leu	Asp	Ile	Leu	Gln
210	GIG	7 -	01,	405					410			•		415	
Met	Leu	Glv	Ara		Gly	Arq	Pro	Gln	Tyr	Asp	Thr	Lys	Gly	Glu	Gly
		1	420		•	•		425	-				430		
Ile	Leu	Ile	Thr	Ser	His	Gly	Glu	Leu	Gln	Tyr	Tyr	Leu	Ser	Leu	Leu
		435					440					445			
Asn	Gln	${\tt Gln}$	Leu	Pro	Ile	Glu	Ser	Gln	Met	Val	Ser	Lys	Leu	Pro	Asp
	450					455					460				
Met	Leu	Asn	Ala	Glu	Ile	Val	Leu	Gly	Asn	Val	Gln	Asn	Ala	Lys	
465	-				470					475		_		-	480
Ala	Val	Asn	Trp	Leu	Gly	Tyr	Ala	Tyr		Tyr	Ile	Arg	Met	Leu	Arg
				485			_	 •	490	•	•	T	<i>α</i> 1	495	D~c
Ser	Pro	Thr		Tyr	Gly	Ile	Ser		Asp	ASP	Leu	ьys	510	ASP	Pro
			500	_		*	.	505	1701	ui a	Th-	בות		T.211	Met
Leu	Leu		GIn	Arg	Arg	ren	520	Leu	vai	птъ	1111	525	AIG	Dea	
	Asp	515		7	t	17-1		There	Acn	Laze	T.vc		Glv	Asn	Phe
Leu		Lys	ASI	ASII	Leu	535	Буз	ıyı	АЗР	בעם	540		- -,		
~1 n	530 Val	Thr	G) 11	T.e.11	Glv		Tle	Ala	Ser	His		Tyr	Ile	Thr	Asn
545	Val	1111	GIU	200	550	5				555	•	•			560
Asn	Thr	Val	Gln	Thr		Asn	Gln	Leu	Leu	Lys	Pro	Thr	Leu	Ser	Glu
	•			565	•				570					575	
Ile	Glu	Leu	Phe	Arg	Val	Phe	Ser	Leu	Ser	Ser	Glu	Phe	Lys	Asn	Ile
			580					585					590		
Thr	Val	Arg	Glu	Glu	Glu	Lys	Leu	Glu	Leu	Gln	Lys		Leu	Glu	Arg
		595					600		_		_	605		_	~ 1 _
Val	Pro	Ile	Pro	Val	Lys		Ser	Ile	Glu	Glu		Ser	AIA	гÀг	Ile
	610			_		615		_	~3	•	620		61	~1	Dho
	Val	Leu	Leu	Gln		Phe	TTE	Ser	GIn	635	Lys	Den	GIU	GIY	Phe 640
625	_			»	630	17-1	The rese	u-1	Thr		Ser	Δla	Glv	Ara	Leu
Ala	Leu	Met	AIA	645	Mec	vai	ıyı	vaı	650	GIII	JCI	7.1.4		655	
W-+	7 ~~	ת 1 ת	Tla		Glu	Tle	Val	T.eu		Ara	Glv	Tro	Ala		Leu
MEC	Arg	AIA	660	FIIC	014			665		5	2	2	670		
Thr	Asn	Lvs		Leu	Asn	Leu	Cys	Lys	Met	Ile	Asp	Lys	Arg	Met	Trp
	1101	675					680				_	685			•
Gln	Ser	Met	Cys	Pro	Leu	Arg	Gln	Phe	Arg	Lys	Leu	Pro	Glu	Glu	Val
	690					695					700				
Val	Lys	Lys	Ile	Glu	Lys	Lys	Asn	Phe	Pro	Phe	Glu	Arg	Leu	Tyr	Asp
705					710					715					720
Leu	Asn	His	Asn	Glu	Ile	Gly	Glu	Leu		Arg	Met	Pro	Lys	Met	Gly
				725					730	_	_	_	~-	735	.
Lys	Thr	Ile		Lys	Tyr	Val	His			Pro	Lys	Leu	GIU	Leu	Ser
			740					745		T	T	17-7	750	T 011	Th~
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		755	• -	Ξ,	03 -	m	760	G1 v	T ***	1737	Hic		Ser	Ser	Glu
Ile	Thr	Pro	ASP	Pne	GID	TLD	wsb	GIU	n A 2	val	****	U L y			Glu

	770					775					780				
Ala			Tle	Len	Val	-		. 17a1	l Acr	. Car			112	ום. ז	ı His
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Ile	Thr	Phe	Phe	Val	Pro	Val	Phe	. Glı			Pro	Pro	Glr		r Phe
			820					825					830		
Ile	Arg	Val	Val	Ser	Asp	Arg	Trr			Cvs	Glu	Thr	Glr	Lei	ı Pro
	Ū	835			•	_	840					845			
Val	Ser	Phe	Arg	His	Leu	Ile	Leu	Pro	Glu	ı Lys	Tyr	Pro	Pro	Pro	Thr
	850		_			855				•	860				
Glu	Leu	Leu	Asp	Leu	Gln	Pro	Leu	Pro	Val	Ser	Ala	Leu	Arg	Asr	Ser
865					870		•			875			_		880
Ala	Phe	Glu	Ser	Leu	Tyr	Gln	Asp	Lys	Phe	Pro	Phe	Phe	Asn	Pro	Ile
				885					890					895	
Gln	Thr	Gln	Val	Phe	Asn	Thr	Val	Tyr	Asn	Ser	Asp	Asp	Asn	Val	Phe
			900					905					910		
Val	Gly	Ala	Pro	Thr	Gly	Ser	Gly	Lys	Thr	Ile	Cys	Ala	Glu	Phe	Ala
		915					920					925			
Ile		Arg	Met	Leu	Leu	Gln	Ser	Ser	Glu	Gly	Arg	Cys	Val	Tyr	Ile
	930					935					940				
	Pro	Met	Glu	Ala		Ala	Glu	Gln	Val		Met	Asp	Trp	Tyr	Glu
945			_	_	950					955					960
Lys	Phe	Gln	Asp	_	Leu	Asn	Lys	Lys			Leu	Leu	Thr	-	Glu
			_	965	_	_	_		970		_			975	
Inr	ser	Thr		Leu	Lys	Leu	Leu			Gly	Asn	Ile		Ile	Ser
Th.	D	G1	980			~1 -	•	985		•		•	990		_
1111	PIO	995	Lys	iip	Asp	TIE			Arg	Arg	Trp	_		Arg	rys
Acn	17 n 1		y c.z.	710	7.00	T an	100		17-1	Asp	C1	100		T 011	T1.
ASII	1010		WOII	116	MSII	101		val	vaı	ASP	1020		птъ	Leu	116
Glv			Agn	Glv	Pro			Glu	V=1	Tle			7 20	Mot	Arg
1029		QU	7211	OLY	1030		Dea	GIU	vai	103	-	361	vra	riec	1040
		Ser	Ser	Gln			Ara	Pro	Tle	Arg		Val	Δla	T.e.11	
- 4 -				1045					105					105	
Ser	Ser	Leu	Ser			Lvs	Asp	Val		His	Trp	Leu	Glv		
			1060					106					1070	-	
Ala	Thr	Ser	Thr	Phe	Asn	Phe	His	Pro	Asn	Val	Arg	Pro	Val	Pro	Leu
		1075					108		•		•	1085			
Glu	Leu	His	Ile	Gln	Gly	Phe	Asn	Ile	Ser	His	Thr	Gln	Thr	Arg	Leu
•	1090)				1095	5				1100)			
Leu	Ser	Met	Ala	Lys	Pro	Val	Tyr	His	Ala	Ile	Thr	Lys	His	Ser	Pro
1105	i				1110)				1115	;				1120
Lys	Lys	Pro	Val	Ile	Val	Phe	Val	Pro	Ser	Arg	Lys	Gln	Thr	Arg	Leu
				1125	5				1130)				1135	5
Thr	Ala	Ile	Asp	Ile	Leu	Thr	Thr	Cys	Ala	Ala	Asp	Ile	Gln	Arg	Gln
			1140					1145	5				1150)	
Arg	Phe	Leu	His	Cys	Thr	Glu	Lys	Asp	Leu	Ile	Pro	Tyr	Leu	Glu	Lys
		1155					1160					1165			
Leu	Ser	Asp	Ser	Thr	Leu	Lys	Glu	Thr	Leu	Leu	Asn	Gly	Val	Gly	Tyr
	1170					1175					1180				
Leu	His	Glu	Gly	Leu	Ser	Pro	Met	Glu	Arg	Arg		Val	Glu	Gln	Leu
1185					1190					1195					1200
Dha	502	Ser	Gly	Ala	Ile	Gln	Val	Val	Val	Ala	Ser .	Arg	Ser	Leu	Cvs

		1	210		1215
1205 Trp Gly Met Asn Val) 			Met A	
	Ala Ala	nis Leu v	a1 116 11,	ת ששה ב 1	.230
1220		1225	ral Bom The		
Tyr Tyr Asn Gly Lys			al Asp ly.	1245	te tyt Asp
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Val Leu Gln Met Val	Gly His	Ala Asn A	rg Pro Le	u Gin A	sp Asp Glu
1250	1255		12	50	
Gly Arg Cys Val Ile	Met Cys	Gln Gly S	er Lys Ly	s Asp F	he Phe Lys
1265	1270		1275		1280
Lys Phe Leu Tyr Glu	Pro Leu	Pro Val G	lu Ser Hi	s Leu A	sp His Cys
128		1	.290		1295
Met His Asp His Phe	λen Δlai	Glu Ile V	al Thr Ly	s Thr I	le Glu Asn
1300	A311 112G	1305		1	L310
Lys Gln Asp Ala Val	3 cm Tree		rn Thr Ph		
				1325	·,- · ; · ;
1315		1320	Cln Cl		er His Ara
Met Thr Gln Asn Pro			en ern er	y 116 3	er mrs mrs
1330	1335		13		0 3
His Leu Ser Asp His	Leu Ser	Glu Leu V	al Glu Gl	n Inr 1	Leu ser Asp
1345	1350		1355		1360
Leu Glu Gln Ser Lys	Cys Ile	Ser Ile G	Slu Asp Gl	u Met A	Asp Val Ala
136	5	1	L370		1375
Pro Leu Asn Leu Gly	Met Ile	Ala Ala T	yr Tyr Ty	r Ile A	Asn Tyr Thr
1380		1385		3	L390
Thr Ile Glu Leu Phe	Ser Met	Ser Leu A	Asn Ala Ly	s Thr I	Lys Val Arg
1395		1400	-	1405	
Gly Leu Ile Glu Ile	Tle Ser		la Glu Tv	r Glu A	Asn Ile Pro
1410	1415			20	
1411)					
	222	Tou Tou N	ra Gla Le	n Ala (In Lvs Val
Ile Arg His His Glu	Asp Asn	Leu Leu A	Arg Gln Le	u Ala (Sln Lys Val
Ile Arg His His Glu	Asp Asn 1430	Leu Leu A	1435		1440
Ile Arg His His Glu 1425 Pro His Lys Leu Asn	Asp Asn 1430 Asn Pro	Leu Leu A	1435 Asn Asp Pr		1440 Val Lys Thr
Ile Arg His His Glu 1425 Pro His Lys Leu Asn 144	Asp Asn 1430 Asn Pro	Leu Leu A	1435 Asn Asp Pr L450	o His V	1440 Val Lys Thr 1455
Ile Arg His His Glu 1425 Pro His Lys Leu Asn	Asp Asn 1430 Asn Pro	Lys Phe A	1435 Asn Asp Pr L450	o His \	J440 Val Lys Thr 1455 Ser Ala Glu
Ile Arg His His Glu 1425 Pro His Lys Leu Asn 144 Asn Leu Leu Gln 1460	Asp Asn 1430 Asn Pro 5 Ala His	Leu Leu A Lys Phe A 1 Leu Ser A 1465	1435 Asn Asp Pr 1450 Arg Met Gl	o His \n Leu S	1440 Val Lys Thr 1455 Ser Ala Glu 1470
Ile Arg His His Glu 1425 Pro His Lys Leu Asn 144 Asn Leu Leu Leu Gln	Asp Asn 1430 Asn Pro 5 Ala His	Leu Leu A Lys Phe A 1 Leu Ser A 1465	1435 Asn Asp Pr 1450 Arg Met Gl	o His \ n Leu S a Ile A	1440 Val Lys Thr 1455 Ser Ala Glu 1470
Ile Arg His His Glu 1425 Pro His Lys Leu Asn 144 Asn Leu Leu Leu Gln 1460 Leu Gln Ser Asp Thr	Asp Asn 1430 Asn Pro 5 Ala His Glu Glu	Leu Leu A Lys Phe A Leu Ser A 1465 Ile Leu S 1480	1435 Asn Asp Pr 1450 Arg Met Gl Ser Lys Al	o His \ n Leu S a Ile 3 1485	1440 Val Lys Thr 1455 Ser Ala Glu 1470 Arg Leu Ile
Ile Arg His His Glu 1425 Pro His Lys Leu Asn 144 Asn Leu Leu Leu Gln 1460 Leu Gln Ser Asp Thr	Asp Asn 1430 Asn Pro 5 Ala His Glu Glu	Leu Leu A Lys Phe A Leu Ser A 1465 Ile Leu S 1480	1435 Asn Asp Pr 1450 Arg Met Gl Ser Lys Al	o His \ n Leu S a Ile 3 1485	1440 Val Lys Thr 1455 Ser Ala Glu 1470 Arg Leu Ile
Ile Arg His His Glu 1425 Pro His Lys Leu Asn 144 Asn Leu Leu Leu Gln 1460 Leu Gln Ser Asp Thr 1475 Gln Ala Cys Val Asp	Asp Asn 1430 Asn Pro 5 Ala His Glu Glu Val Leu 1495	Leu Leu A Lys Phe A Leu Ser A 1465 Ile Leu S 1480 Ser Ser A	1435 Asn Asp Pr 1450 Arg Met Gl Ser Lys Al Asn Gly Tr	o His \ n Leu S a Ile 3 1485 p Leu S	January 1440 Val Lys Thr 1455 Ser Ala Glu 1470 Arg Leu Ile Ser Pro Ala
Ile Arg His His Glu 1425 Pro His Lys Leu Asn 144 Asn Leu Leu Leu Gln 1460 Leu Gln Ser Asp Thr 1475 Gln Ala Cys Val Asp	Asp Asn 1430 Asn Pro 5 Ala His Glu Glu Val Leu 1495	Leu Leu A Lys Phe A Leu Ser A 1465 Ile Leu S 1480 Ser Ser A	1435 Asn Asp Pr 1450 Arg Met Gl Ser Lys Al Asn Gly Tr	o His \ n Leu S a Ile 3 1485 p Leu S	January 1440 Val Lys Thr 1455 Ser Ala Glu 1470 Arg Leu Ile Ser Pro Ala
Ile Arg His His Glu 1425 Pro His Lys Leu Asn 144 Asn Leu Leu Leu Gln 1460 Leu Gln Ser Asp Thr 1475 Gln Ala Cys Val Asp 1490 Leu Ala Ala Met Glu	Asp Asn 1430 Asn Pro 5 Ala His Glu Glu Val Leu 1495 Leu Ala 1510	Leu Leu A Lys Phe A Leu Ser A 1465 Ile Leu S 1480 Ser Ser A Gln Met V	1435 Asn Asp Pr 1450 Arg Met Gl Ser Lys Al Asn Gly Tr 15 Val Thr Gl 1515	n Leu S a Ile 3 1485 p Leu S 00 n Ala N	January 1440 Val Lys Thr 1455 Ser Ala Glu 1470 Arg Leu Ile Ser Pro Ala Met Trp Ser 1520
Ile Arg His His Glu 1425 Pro His Lys Leu Asn 144 Asn Leu Leu Leu Gln 1460 Leu Gln Ser Asp Thr 1475 Gln Ala Cys Val Asp 1490 Leu Ala Ala Met Glu	Asp Asn 1430 Asn Pro 5 Ala His Glu Glu Val Leu 1495 Leu Ala 1510	Leu Leu A Lys Phe A Leu Ser A 1465 Ile Leu S 1480 Ser Ser A Gln Met V	1435 Asn Asp Pr 1450 Arg Met Gl Ser Lys Al Asn Gly Tr 15 Val Thr Gl 1515	n Leu S a Ile 3 1485 p Leu S 00 n Ala N	January 1440 Val Lys Thr 1455 Ser Ala Glu 1470 Arg Leu Ile Ser Pro Ala Met Trp Ser 1520
Ile Arg His His Glu 1425 Pro His Lys Leu Asn 144 Asn Leu Leu Leu Gln 1460 Leu Gln Ser Asp Thr 1475 Gln Ala Cys Val Asp 1490 Leu Ala Ala Met Glu 1505 Lys Asp Ser Tyr Leu	Asp Asn 1430 Asn Pro 5 Ala His Glu Glu Val Leu 1495 Leu Ala 1510 Lys Gln	Leu Leu A Lys Phe A 1 Leu Ser A 1465 Ile Leu S 1480 Ser Ser A Gln Met V Leu Pro F	1435 Asn Asp Pr 1450 Arg Met Gl Ger Lys Al Asn Gly Tr 15 Val Thr Gl 1515 His Phe Th	n Leu S a Ile 3 1485 p Leu S 00 n Ala N	January 1440 Val Lys Thr 1455 Ser Ala Glu 1470 Arg Leu Ile Ser Pro Ala Met Trp Ser 1520
Ile Arg His His Glu 1425 Pro His Lys Leu Asn 144 Asn Leu Leu Leu Gln 1460 Leu Gln Ser Asp Thr 1475 Gln Ala Cys Val Asp 1490 Leu Ala Ala Met Glu 1505 Lys Asp Ser Tyr Leu 152	Asp Asn 1430 Asn Pro 5 Ala His Glu Glu Val Leu 1495 Leu Ala 1510 Lys Gln 5	Leu Leu A Lys Phe A Leu Ser A 1465 Ile Leu S 1480 Ser Ser A Gln Met V Leu Pro H	1435 Asn Asp Pr 1450 Arg Met Gl Ser Lys Al Asn Gly Tr 15 Val Thr Gl 1515 His Phe Th	n Leu S a Ile J 1485 p Leu S 00 n Ala N	I440 Val Lys Thr 1455 Ser Ala Glu 1470 Arg Leu Ile Ser Pro Ala Met Trp Ser 1520 Glu His Ile 1535
Ile Arg His His Glu 1425 Pro His Lys Leu Asn 144 Asn Leu Leu Leu Gln 1460 Leu Gln Ser Asp Thr 1475 Gln Ala Cys Val Asp 1490 Leu Ala Ala Met Glu 1505 Lys Asp Ser Tyr Leu 152 Lys Arg Cys Thr Asp	Asp Asn 1430 Asn Pro 5 Ala His Glu Glu Val Leu 1495 Leu Ala 1510 Lys Gln 5	Leu Leu A Lys Phe A 1 Leu Ser A 1465 Ile Leu S 1480 Ser Ser A Gln Met V Leu Pro F	1435 Asn Asp Pr 1450 Arg Met Gl Ser Lys Al Asn Gly Tr 15 Val Thr Gl 1515 His Phe Th	n Leu S a Ile A 1485 p Leu S 00 n Ala N r Ser (I440 Val Lys Thr 1455 Ser Ala Glu 1470 Arg Leu Ile Ser Pro Ala Met Trp Ser 1520 Glu His Ile 1535
Ile Arg His His Glu 1425 Pro His Lys Leu Asn 144 Asn Leu Leu Leu Gln 1460 Leu Gln Ser Asp Thr 1475 Gln Ala Cys Val Asp 1490 Leu Ala Ala Met Glu 1505 Lys Asp Ser Tyr Leu 152 Lys Arg Cys Thr Asp	Asp Asn 1430 Asn Pro 5 Ala His Glu Glu Val Leu 1495 Leu Ala 1510 Lys Gln 5 Lys Gly	Leu Leu A Lys Phe A 1 Leu Ser A 1465 Ile Leu S 1480 Ser Ser A Gln Met V Val Glu S 1545	1435 Asn Asp Pr 1450 Arg Met Gl Ser Lys Al Asn Gly Tr 15 Val Thr Gl 1515 His Phe Th 1530 Ser Val Ph	n Leu S a Ile A 1485 p Leu S 00 n Ala N r Ser (January 1440 Val Lys Thr 1455 Ser Ala Glu 1470 Arg Leu Ile Ser Pro Ala Met Trp Ser 1520 Glu His Ile 1535 Ile Met Glu 1550
Ile Arg His His Glu 1425 Pro His Lys Leu Asn 144 Asn Leu Leu Leu Gln 1460 Leu Gln Ser Asp Thr 1475 Gln Ala Cys Val Asp 1490 Leu Ala Ala Met Glu 1505 Lys Asp Ser Tyr Leu 152 Lys Arg Cys Thr Asp 1540 Met Glu Asp Glu Glu	Asp Asn 1430 Asn Pro 5 Ala His Glu Glu Val Leu 1495 Leu Ala 1510 Lys Gln 5 Lys Gly	Leu Leu A Lys Phe A 11 Leu Ser A 1465 Ile Leu S 1480 Ser Ser A Gln Met V Leu Pro F 1 Val Glu S 1545 Ala Leu I	1435 Asn Asp Pr 1450 Arg Met Gl Ser Lys Al Asn Gly Tr 15 Val Thr Gl 1515 His Phe Th 1530 Ser Val Ph	n Leu S a Ile A 1485 p Leu S 00 n Ala N r Ser (January 1440 Val Lys Thr 1455 Ser Ala Glu 1470 Arg Leu Ile Ser Pro Ala Met Trp Ser 1520 Glu His Ile 1535 Ile Met Glu 1550
Ile Arg His His Glu 1425 Pro His Lys Leu Asn 144 Asn Leu Leu Leu Gln 1460 Leu Gln Ser Asp Thr 1475 Gln Ala Cys Val Asp 1490 Leu Ala Ala Met Glu 1505 Lys Asp Ser Tyr Leu 152 Lys Arg Cys Thr Asp 1540 Met Glu Asp Glu Glu	Asp Asn 1430 Asn Pro 5 Ala His Glu Glu Val Leu 1495 Leu Ala 1510 Lys Gln 5 Lys Gly Arg Asn	Leu Leu A Lys Phe A 1 Leu Ser A 1465 Ile Leu S 1480 Ser Ser A Gln Met V Leu Pro F 1 Val Glu S 1545 Ala Leu I	1435 Asn Asp Pr 1450 Arg Met Gl Ger Lys Al Asn Gly Tr 1515 His Phe Th 1530 Ser Val Ph	n Leu S a Ile A 1485 p Leu S 00 n Ala N r Ser (January 1440 Val Lys Thr 1455 Ser Ala Glu 1470 Arg Leu Ile Ser Pro Ala Met Trp Ser 1520 Glu His Ile 1535 Ile Met Glu 1550 Asp Ser Gln
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Ile Arg His His Glu 1425 Pro His Lys Leu Asn 144 Asn Leu Leu Leu Gln 1460 Leu Gln Ser Asp Thr 1475 Gln Ala Cys Val Asp 1490 Leu Ala Ala Met Glu 1505 Lys Asp Ser Tyr Leu 152 Lys Arg Cys Thr Asp 1540 Met Glu Asp Glu Glu 1555 Ile Ala Asp Val Ala	Asp Asn 1430 Asn Pro 5 Ala His Glu Glu Val Leu 1495 Leu Ala 1510 Lys Gln 5 Lys Gly Arg Asn Arg Phe 1575	Leu Leu A Lys Phe A 1 Leu Ser A 1465 Ile Leu S 1480 Ser Ser A Gln Met V Leu Pro F 1 Val Glu S 1545 Ala Leu I 1560 Cys Asn A	1435 Asn Asp Pr 1450 Arg Met Gl Ser Lys Al Asn Gly Tr 1515 His Phe Th 1530 Ser Val Ph Leu Gln Le Arg Tyr Pr	n Leu S a Ile A 1485 p Leu S 00 n Ala N r Ser (e Asp : 1565 o Asn :	Jato Val Lys Thr 1455 Ser Ala Glu 1470 Arg Leu Ile Ser Pro Ala Met Trp Ser 1520 Glu His Ile 1535 Ile Met Glu 1550 Asp Ser Gln Ile Glu Leu
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Ile Arg His His Glu 1425 Pro His Lys Leu Asn 144 Asn Leu Leu Leu Gln 1460 Leu Gln Ser Asp Thr 1475 Gln Ala Cys Val Asp 1490 Leu Ala Ala Met Glu 1505 Lys Asp Ser Tyr Leu 152 Lys Arg Cys Thr Asp 1540 Met Glu Asp Glu Glu 1555 Ile Ala Asp Val Ala 1570 Ser Tyr Glu Val Val	Asp Asn 1430 Asn Pro 5 Ala His Glu Glu Val Leu 1495 Leu Ala 1510 Lys Gln 5 Lys Gly Arg Asn Arg Phe 1575 Asp Lys 1590	Leu Leu A Lys Phe A 1 Leu Ser A 1465 Ile Leu S 1480 Ser Ser A Gln Met V Leu Pro F 1 Val Glu S 1545 Ala Leu I 1560 Cys Asn A S Asp Ser I	1435 Asn Asp Pr 1450 Arg Met Gl Ser Lys Al Asn Gly Tr 1515 His Phe Th 1530 Ser Val Ph Leu Gln Le Arg Tyr Pr 15 Ile Arg Se 1595	n Leu S a Ile A 1485 p Leu S 00 n Ala M r Ser C e Asp S u Thr A 1565 o Asn S 80 r Gly C	I440 Val Lys Thr 1455 Ser Ala Glu 1470 Arg Leu Ile Ser Pro Ala Met Trp Ser 1520 Glu His Ile 1535 Ile Met Glu 1550 Asp Ser Gln Ile Glu Leu Gly Pro Val 1600
Ile Arg His His Glu 1425 Pro His Lys Leu Asn 144 Asn Leu Leu Leu Gln 1460 Leu Gln Ser Asp Thr 1475 Gln Ala Cys Val Asp 1490 Leu Ala Ala Met Glu 1505 Lys Asp Ser Tyr Leu 152 Lys Arg Cys Thr Asp 1540 Met Glu Asp Glu Glu 1555 Ile Ala Asp Val Ala 1570 Ser Tyr Glu Val Val	Asp Asn 1430 Asn Pro 5 Ala His Glu Glu Val Leu 1495 Leu Ala 1510 Lys Gln 5 Lys Gly Arg Asn Arg Phe 1575 Asp Lys 1590	Leu Leu A Lys Phe A 1 Leu Ser A 1465 Ile Leu S 1480 Ser Ser A Gln Met V Leu Pro F 1 Val Glu S 1545 Ala Leu I 1560 Cys Asn A S Asp Ser I	1435 Asn Asp Pr 1450 Arg Met Gl Ser Lys Al Asn Gly Tr 1515 His Phe Th 1530 Ser Val Ph Leu Gln Le Arg Tyr Pr 15 Ile Arg Se 1595	n Leu S a Ile A 1485 p Leu S 00 n Ala M r Ser C e Asp S u Thr A 1565 o Asn S 80 r Gly C	I440 Val Lys Thr 1455 Ser Ala Glu 1470 Arg Leu Ile Ser Pro Ala Met Trp Ser 1520 Glu His Ile 1535 Ile Met Glu 1550 Asp Ser Gln Ile Glu Leu Gly Pro Val 1600 Gly Pro Val
Ile Arg His His Glu 1425 Pro His Lys Leu Asn 144 Asn Leu Leu Leu Gln 1460 Leu Gln Ser Asp Thr 1475 Gln Ala Cys Val Asp 1490 Leu Ala Ala Met Glu 1505 Lys Asp Ser Tyr Leu 152 Lys Arg Cys Thr Asp 1540 Met Glu Asp Glu Glu 1555 Ile Ala Asp Val Ala 1570 Ser Tyr Glu Val Val 1585 Val Val Leu Val Gln	Asp Asn 1430 Asn Pro 5 Ala His Glu Glu Val Leu 1495 Leu Ala 1510 Lys Gln 5 Lys Gly Arg Asn Arg Phe 1575 Asp Lys 1590 Leu Glu 5	Leu Leu A Lys Phe A 1465 ILeu Ser A 1465 Ile Leu S 1480 Ser Ser A Gln Met V Leu Pro F 1545 Ala Leu I 1560 Cys Asn A S Asp Ser I Arg Glu G	1435 Asn Asp Pr 1450 Arg Met Gl Ser Lys Al Asn Gly Tr 155 His Phe Th 1530 Ser Val Ph Leu Gln Le Arg Tyr Pr 15 Ile Arg Se 1595 Glu Glu Va	n Leu S a Ile I 1485 p Leu S 00 n Ala I r Ser (e Asp : 1565 o Asn : 80 r Gly (l Thr (I440 Val Lys Thr 1455 Ser Ala Glu 1470 Arg Leu Ile Ser Pro Ala Met Trp Ser 1520 Glu His Ile 1535 Ile Met Glu 1550 Asp Ser Gln Ile Glu Leu Gly Pro Val 1600 Gly Pro Val 1615
Ile Arg His His Glu 1425 Pro His Lys Leu Asn 144 Asn Leu Leu Leu Gln 1460 Leu Gln Ser Asp Thr 1475 Gln Ala Cys Val Asp 1490 Leu Ala Ala Met Glu 1505 Lys Asp Ser Tyr Leu 152 Lys Arg Cys Thr Asp 1540 Met Glu Asp Glu Glu 1555 Ile Ala Asp Val Ala 1570 Ser Tyr Glu Val Val 1585 Val Val Leu Val Gln	Asp Asn 1430 Asn Pro 5 Ala His Glu Glu Val Leu 1495 Leu Ala 1510 Lys Gln 5 Lys Gly Arg Asn Arg Phe 1575 Asp Lys 1590 Leu Glu 5	Leu Leu A Lys Phe A 1465 ILeu Ser A 1465 Ile Leu S 1480 Ser Ser A Gln Met V Leu Pro F 1545 Ala Leu I 1560 Cys Asn A S Asp Ser I Arg Glu G	1435 Asn Asp Pr 1450 Arg Met Gl Ser Lys Al Asn Gly Tr 155 His Phe Th 1530 Ser Val Ph Leu Gln Le Arg Tyr Pr 15 Ile Arg Se 1595 Glu Glu Va	n Leu S a Ile I 1485 p Leu S 00 n Ala I r Ser (e Asp : 1565 o Asn : 80 r Gly (l Thr (I440 Val Lys Thr 1455 Ser Ala Glu 1470 Arg Leu Ile Ser Pro Ala Met Trp Ser 1520 Glu His Ile 1535 Ile Met Glu 1550 Asp Ser Gln Ile Glu Leu Gly Pro Val 1600 Gly Pro Val 1615
Ile Arg His His Glu 1425 Pro His Lys Leu Asn 144 Asn Leu Leu Leu Gln 1460 Leu Gln Ser Asp Thr 1475 Gln Ala Cys Val Asp 1490 Leu Ala Ala Met Glu 1505 Lys Asp Ser Tyr Leu 1525 Lys Arg Cys Thr Asp 1540 Met Glu Asp Glu Glu 1555 Ile Ala Asp Val Ala 1570 Ser Tyr Glu Val Val 1585 Val Val Leu Val Gln	Asp Asn 1430 Asn Pro 5 Ala His Glu Glu Val Leu 1495 Leu Ala 1510 Lys Gln 5 Lys Gly Arg Asn Arg Phe 1575 Asp Lys 1590 Leu Glu 5	Leu Leu A Lys Phe A 1465 ILeu Ser A 1465 Ile Leu S 1480 Ser Ser A Gln Met V Leu Pro F 1545 Ala Leu I 1560 Cys Asn A S Asp Ser I Arg Glu G	1435 Asn Asp Pr 1450 Arg Met Gl Ser Lys Al Asn Gly Tr 155 His Phe Th 1530 Ser Val Ph Leu Gln Le Arg Tyr Pr 15 Ile Arg Se 1595 Glu Glu Va	o His \\ n Leu \(\frac{1}{2} \) a Ile \(\frac{1}{2} \) 1485 p Leu \(\frac{1}{2} \) 00 n Ala \(\frac{1}{2} \) c Asp \(\frac{1}{2} \) 4 Thr \(\frac{1}{2} \) 7 Trp \(\frac{1}{2} \)	I440 Val Lys Thr 1455 Ser Ala Glu 1470 Arg Leu Ile Ser Pro Ala Met Trp Ser 1520 Glu His Ile 1535 Ile Met Glu 1550 Asp Ser Gln Ile Glu Leu Gly Pro Val 1600 Gly Pro Val 1615
Ile Arg His His Glu 1425 Pro His Lys Leu Asn 144 Asn Leu Leu Leu Gln 1460 Leu Gln Ser Asp Thr 1475 Gln Ala Cys Val Asp 1490 Leu Ala Ala Met Glu 1505 Lys Asp Ser Tyr Leu 1525 Lys Arg Cys Thr Asp 1540 Met Glu Asp Glu Glu 1555 Ile Ala Asp Val Ala 1570 Ser Tyr Glu Val Val 1585 Val Val Leu Val Gln 160 Ile Ala Pro Leu Phe	Asp Asn 1430 Asn Pro 5 Ala His Glu Glu Val Leu 1495 Leu Ala 1510 Lys Gln 5 Lys Gly Arg Asn Arg Phe 1575 Asp Lys 1590 Leu Glu 5 Pro Gln	Leu Leu A Lys Phe A Leu Ser A 1465 Ile Leu S 1480 Ser Ser A Gln Met V Leu Pro H Val Glu S 1545 Ala Leu I 1560 Cys Asn A Asp Ser I Arg Glu G Lys Arg Glu G 1625	1435 Asn Asp Pr 1450 Arg Met Gl Ser Lys Al Asn Gly Tr 155 His Phe Th 1530 Ser Val Ph Leu Gln Le Arg Tyr Pr 15 Ile Arg Se 1595 Glu Glu Va 1610 Glu Glu Gl	o His \\ n Leu \(\frac{1}{2} \) a Ile \(\frac{1}{2} \) 1485 p Leu \(\frac{1}{2} \) 00 n Ala \(\frac{1}{2} \) r Ser \(\frac{1}{2} \) 4 Thr \(\frac{1}{2} \) 7 Trp \(\frac{1}{2} \)	I440 Val Lys Thr 1455 Ser Ala Glu 1470 Arg Leu Ile Ser Pro Ala Met Trp Ser 1520 Glu His Ile 1535 Ile Met Glu 1550 Asp Ser Gln Ile Glu Leu Gly Pro Val 1600 Gly Pro Val 1615 Trp Val Val

1645

1660

1640

1655

Leu Gln Gln Lys Ala Lys Val Lys Leu Asp Phe Val Ala Pro Ala Thr

Gly Ala His Asn Tyr Thr Leu Tyr Phe Met Ser Asp Ala Tyr Met Gly

1635

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1670
                                        1675
Cys Asp Gln Glu Tyr Lys Phe Ser Val Asp Val Lys Glu Ala Glu Thr
                1685
                                     1690
Asp Ser Asp Ser Asp
            1700
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<212> DNA
<213> Homo sapiens
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agacacccct cgaaqcaqtq qtqcctctaq catcttcqac ctqaqqaacc tqqcaqctqa
ctcattgttg ccctctctgc tagagegggc ggcccagaa gatgtggacc ggcgcaatga
agecettega eggeageace ggeeceegge cetgetteee etetaceegg cacetgaega
ggatgaagcc ggggaacgct gtagccgcct agagccaccc ccgcgagcac tttggacaaa
ggatcttggt caagtgtctg tcgctcaagt tcgagattga aattgagccc atctttggga
tettggetet gtatgatgtg eggaagaaaa agaagatete ggaaaaette taettegace
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586
<210> 2236
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<212> PRT
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Met Ser Pro Lys Gln Pro Leu His Gly Val Arg Val Gln Val Glu Val
Glu Val Phe Arg Asp Leu Leu Phe Leu Pro His Ile Ile Gln Ser Gln
                                25
Asp Pro Lys Asp Gly Leu Asn Phe Asn Leu Glu Leu Glu Arg Gln Thr
                            40
Leu Asp Gln Asp Pro Leu Ser Lys Val Leu Ala Gly Val Ala Leu Gly
Gly Tyr Ser Val Pro Arg Leu His Pro Arg Gln Val Pro Gly Arg Gly
                    70
                                        75
Glu Ala Gly Pro Gly Ala Gly Ala Ala Val Glu Gly Leu His Cys Ala
```

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90
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Gly Pro His Leu Leu Gly Pro Pro Ala Leu Ala Glu Arg Ala Thr Met
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Ser Gln Leu Pro Gly Ser Ser Gly Arg Arg Cys
                           120
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<210> 2237
<211> 421
<212> DNA
<213> Homo sapiens
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gggaggaget gaggtecaag coetecteca gtgcateace etggteagga gtggggeagt
gtggagccag gggctcttca gccagcacct gctgcactat gggctccagc tgtgcaagac
caccegtgag aaggagtett gttgggagca gggtggggaa gcactgtggg agaggtgtee
ttggctcggg tagcagggac cttgatgtat cttgaagcca gggggccgac tgaggcgctt
gtctgaaggc ctccatgaga gggaggggc tggagggggc tgttcccaat aatagctcta
420
t
421
<210> 2238
<211> 124
<212> PRT
<213> Homo sapiens
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Met Glu Ala Phe Arg Gln Ala Pro Gln Ser Ala Pro Trp Leu Gln Asp
                                    10
                5
Thr Ser Arg Ser Leu Leu Pro Glu Pro Arg Thr Pro Leu Pro Gln Cys
                           . 25
Phe Pro Thr Leu Leu Pro Thr Arg Leu Leu Thr Gly Gly Leu Ala
                            40
Gln Leu Glu Pro Ile Val Gln Gln Val Leu Ala Glu Glu Pro Leu Ala
                        55
Pro His Cys Pro Thr Pro Asp Gln Gly Asp Ala Leu Glu Glu Gly Leu
                                        75
                   70
Asp Leu Ser Ser Leu Ser Ala Pro Asp His Phe Gln Gly Leu Ser
                85
                                    90
Pro Ser Trp Pro Ala Leu Leu Arg Pro Lys Arg Ser Val Trp Gly Ala
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Ser Ser Trp Leu Gln Trp Asp Thr Gly Val Pro Ser
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<210> 2239
<211> 623
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<213> Homo sapiens
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120
aggcagccag gcagcagctc tagctcagcc cctgggcagc ccagcacagg ggttgctcga
180
cccacagtta gttctggccc tgtgcctagg cgccagaatg gcagctccag ctcaggacct
gagegateaa teagtgggte caagaageea accaatgaet caaateeete taggeggaca
gtcagtggta catgtggccc tggacaacct gcaagcagct caggtggccc tgggcgaccc
atcagtggtt cagttagttc tgcaagaccc ttgggcagct ctcgtggccc tggccggcct
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gtcagtggcc ctgggagatc cataagtggc ccaattccag ctggacggac tgtcagtaat
tcagtcccag gaagaccagt gagcagcttg ggacctgggc aaacagttag tagctcaggt
cccactataa agcctaagtg cac
623
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<211> 207
<212> PRT
<213> Homo sapiens
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Leu Ser His Pro Ser His Ser Arg Pro Gly Pro Met Val Thr Pro His
            20
Asn Lys Ala Lys Ser Pro Gly Val Arg Gln Pro Gly Ser Ser Ser
                            40
Ser Ala Pro Gly Gln Pro Ser Thr Gly Val Ala Arg Pro Thr Val Ser
                        55
                                            60
Ser Gly Pro Val Pro Arg Arg Gln Asn Gly Ser Ser Ser Ser Gly Pro
                                        75
                    70
Glu Arg Ser Ile Ser Gly Ser Lys Lys Pro Thr Asn Asp Ser Asn Pro
                85 '
                                    90
Ser Arg Arg Thr Val Ser Gly Thr Cys Gly Pro Gly Gln Pro Ala Ser
                                                    110
                                105
Ser Ser Gly Gly Pro Gly Arg Pro Ile Ser Gly Ser Val Ser Ser Ala
                                                125
                            120
        115
Arg Pro Leu Gly Ser Ser Arg Gly Pro Gly Arg Pro Val Ser Ser Pro
                        135
His Glu Leu Arg Arg Pro Val Ser Gly Leu Gly Pro Pro Gly Arg Ser
                                        155
Val Ser Gly Pro Gly Arg Ser Ile Ser Gly Pro Ile Pro Ala Gly Arg
```

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170
                165
Thr Val Ser Asn Ser Val Pro Gly Arg Pro Val Ser Ser Leu Gly Pro
                                185
            180
Gly Gln Thr Val Ser Ser Ser Gly Pro Thr Ile Lys Pro Lys Cys
                                                205
                            200
        195
<210> 2241
<211> 656
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gtggccgaga tcgtgggcag gcaaggctgc aagattaagg ccttgagggc caagaccaac
acctacatta gaaccccggg aaggggcgag gaaccagtgt tcatggtgac agggcgacgg
gaggacgtgg ccacagcccg gcgggaaatc atctcagcag cggagcactt ctccatgatc
cgtgcctccc gcaacaagtc aggcgccgcc tttggtgtgg ctcctgctct gcccggccag
gtgaccatcc gtgtgcgggt gccctaccgc gtggtggggc tggtggtggg ccccaaaggg
gcaaccatca agegcateca geagcaaacc aacacataca ttatcacacc aageegtgac
cgcgaccccg tgttcgagat cacgggtgcc ccaggcaacg tggagcgtgc gcgcgaggag
atcgagacgc acatcgcggt gcgcactggc aagatcctcg agtacaacaa tgaaaacgac
tteetggegg ggageceega egeageaate gatageeget aeteegaege etggegggtg
caccagooog gotgoaagoo cototocaco ttooggoaga acagootggg otgoag
656
<210> 2242
<211> 218
<212> PRT
<213> Homo sapiens
<400> 2242
Xaa Arg Val Lys Gly Ser Ser Asn Thr Thr Glu Cys Val Pro Val Pro
Thr Ser Glu His Val Ala Glu Ile Val Gly Arg Gln Gly Cys Lys Ile
                                 25
Lys Ala Leu Arg Ala Lys Thr Asn Thr Tyr Ile Arg Thr Pro Gly Arg
                             40
Gly Glu Glu Pro Val Phe Met Val Thr Gly Arg Arg Glu Asp Val Ala
                                             60
                         55
Thr Ala Arg Arg Glu Ile Ile Ser Ala Ala Glu His Phe Ser Met Ile
                                         75
Arg Ala Ser Arg Asn Lys Ser Gly Ala Ala Phe Gly Val Ala Pro Ala
                                     90
Leu Pro Gly Gln Val Thr Ile Arg Val Arg Val Pro Tyr Arg Val Val
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110
             100
                                 105
Gly Leu Val Val Gly Pro Lys Gly Ala Thr Ile Lys Arg Ile Gln Gln
                             120
Gln Thr Asn Thr Tyr Ile Ile Thr Pro Ser Arg Asp Arg Asp Pro Val
                         135
                                             140
Phe Glu Ile Thr Gly Ala Pro Gly Asn Val Glu Arg Ala Arg Glu Glu
                     150
                                         155
Ile Glu Thr His Ile Ala Val Arg Thr Gly Lys Ile Leu Glu Tyr Asn
                165
                                     170
Asn Glu Asn Asp Phe Leu Ala Gly Ser Pro Asp Ala Ala Ile Asp Ser
            180
                                 185
Arg Tyr Ser Asp Ala Trp Arg Val His Gln Pro Gly Cys Lys Pro Leu
                             200
Ser Thr Phe Arg Gln Asn Ser Leu Gly Cys
    210
                         215
<210> 2243
<211> 384
<212> DNA
<213> Homo sapiens
<400> 2243
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gattcatttc ctggtaagaa tcttctgact tattgagctg catgtcagaa gcaaaaagca
aaaaaaccaa atatgtacat aaaacagtgt tatcattcct taaaagagaa ggaaaataaa
tecetaaata atgtggaetg gaacacagaa atecaagget ggeegeaegg gteetggetg
ggatggcatc cggggagctg ctgctgggga cgtgcttgcc ggcacaggtc aggggagccg
300
ggttctgcct cctccttgcc cactctcttt gcgccctccc tgtgctcgcc tgtcttgttt
tacctcccat cctgggccct tgga
<210> 2244
<211> 108
<212> PRT
<213> Homo sapiens
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Met Gly Gly Lys Thr Arg Gln Ala Ser Thr Gly Arg Ala Gln Arg Glu
Trp Ala Arg Arg Gln Asn Pro Ala Pro Leu Thr Cys Ala Gly Lys
            20
                                25
His Val Pro Ser Ser Ser Pro Asp Ala Ile Pro Ala Arg Thr Arg
                                                45
                            40
Ala Ala Ser Leu Gly Phe Leu Cys Ser Ser Pro His Tyr Leu Gly Ile
Tyr Phe Pro Ser Leu Leu Arg Asn Asp Asn Thr Val Leu Cys Thr Tyr
                                        75
65
                    70
Leu Val Phe Leu Leu Phe Ala Ser Asp Met Gln Leu Asn Lys Ser Glu
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95
                85
Asp Ser Tyr Gln Glu Met Asn Pro Gln Ser Phe Ser
                                105
<210> 2245
<211> 632
<212> DNA
<213> Homo sapiens
<400> 2245
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tegagagaag aggteggaeg egagaggete aactatggte acacettgge ecaegetatt
gaggcccaca agcatttcac gtggcgtcat ggcgaggctg acgcggtggg catggtgttt
180
geggcegaac tgtegcaceg gtacetggga etgtecgatg aggtegttge gegeaceege
actatcctgt ctgagatcgg attgcctgtt acctgtgacg agattaagtg ggcagatctg
cgcaagacga tgaacgtgga caagaaaacc agggtagacc cgcagaccgg gcgtcaagtg
ttgcggtttg tcggtattca caaacccggt caggtcgcca tgatcgtcga ccctgacgag
geegetttag eegagtgeta egaceggtgt teegeaeggt aaaaaegtte ggaaatgaae
atgtggctgc gggtcagtcg gcattcaggc ctccgtgacg ccgtcgaccc caagtgatgt
gacgattcgg gaaatatctt gttgggcact cttgagcctc gcctgattcc ccatacccga
600
cttaagttca gtatcgacgg catgaatccg ga
632
<210> 2246
<211> 153
<212> PRT
<213> Homo sapiens
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Thr Arg Ala Ile Thr Val Lys Ala Gly Val Val Ser Ala Asp Leu His
                                     10
Glu Arg Thr Ser Ser Arg Glu Glu Val Gly Arg Glu Arg Leu Asn Tyr
                                 25
             20
Gly His Thr Leu Ala His Ala Ile Glu Ala His Lys His Phe Thr Trp
                             40
Arg His Gly Glu Ala Asp Ala Val Gly Met Val Phe Ala Ala Glu Leu
Ser His Arg Tyr Leu Gly Leu Ser Asp Glu Val Val Ala Arg Thr Arg
                     70
Thr Ile Leu Ser Glu Ile Gly Leu Pro Val Thr Cys Asp Glu Ile Lys
                                     90
 Trp Ala Asp Leu Arg Lys Thr Met Asn Val Asp Lys Lys Thr Arg Val
                                 105
             100
Asp Pro Gln Thr Gly Arg Gln Val Leu Arg Phe Val Gly Ile His Lys
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120
Pro Gly Gln Val Ala Met Ile Val Asp Pro Asp Glu Ala Ala Leu Ala
                        135
Glu Cys Tyr Asp Arg Cys Ser Ala Arg
145
                    150
<210> 2247
<211> 324
<212> DNA
<213> Homo sapiens
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gaggttgggc gtggggagtg ccgggtacag tcagagttgc caggacagtt tggagcagtg
cotottaato tiggoogcac agcacotigg agotttaaat agacococac goootigggog
coccacce tgacccacc gatctcaget etgeetttee egeetetetg etgggttgca
taagccagcg attcccaacc ccggctgtac ctggaagcta ccccaggagc ttctggagaa
tgtgccgtgt gagccatccc cctg
324
<210> 2248
<211> 105
<212> PRT
<213> Homo sapiens
Met Ala His Thr Ala His Ser Pro Glu Ala Pro Gly Val Ala Ser Arg
Tyr Ser Arg Gly Trp Glu Ser Leu Ala Tyr Ala Thr Gln Gln Arg Gly
Gly Lys Gly Arg Ala Glu Ile Gly Trp Val Ser Gly Gly Gly Ala Gln
                            40 .
Gly Val Gly Val Tyr Leu Lys Leu Pro Gly Ala Val Arg Pro Arg Leu
                                            60
Arg Gly Thr Ala Pro Asn Cys Pro Gly Asn Ser Asp Cys Thr Arg His
                    70
Ser Pro Arg Pro Thr Ser Leu Leu Pro Leu Gly Arg Leu Ala Ser Ser
                85
Val Gly Glu Asn Pro Gly Gly Glu Arg
            100
<210> 2249
<211> 394
<212> DNA
<213> Homo sapiens
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gaaaaccgga taacagggtg tatacaagcc tetgagttet gggagcaaca accagetcaa
60
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cccgcaaggg aaagtgagaa agcaattaag ttgggaaccg cggggttttc ccattcccac
ggtggaaacc gcggccagtg aattgaaatc cgcttcctta aggcgaaatg ggcccttaaa
180
aggeaaggte aaccgcccgc cagtgtgatg gaatttgcaa gaattcggtt tagcaccctc
240
ccggcttttc tcccgaccgc gtgcagggtg ggctgcgctg ggcctgggag gaactgggag
ctgggggctc atgtcctgta taaaggggct gcaggggcgc tgtctccccc cagaagactg
gccacatggg gacaggcctc ctgggggcag atct
394
<210> 2250
<211> 104
<212> PRT
<213> Homo sapiens
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Met Ser Pro Gln Leu Pro Val Pro Pro Arg Pro Ser Ala Ala His Pro
Ala Arg Gly Arg Glu Lys Ser Arg Glu Gly Ala Lys Pro Asn Ser Cys
                               25
Lys Phe His His Thr Gly Gly Arg Leu Thr Leu Pro Phe Lys Gly Pro
                           40
                                              45
Phe Arg Leu Lys Glu Ala Asp Phe Asn Ser Leu Ala Ala Val Ser Thr
                                          60
Val Gly Met Gly Lys Pro Arg Gly Ser Gln Leu Asn Cys Phe Leu Thr
                                      75
                   70
Phe Pro Cys Gly Leu Ser Trp Leu Leu Leu Pro Glu Leu Arg Gly Leu
                                   90
Tyr Thr Pro Cys Tyr Pro Val Phe
           100
<210> 2251
<211> 654
<212> DNA
<213> Homo sapiens
<400> 2251
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ttcaatcatg acttcgtgat aaaagattga gtgtgaggtt ataacgccga agcggtaaaa
agtttaatca tgtttcagac ttttatttct cgccataatt caaacttttt ttctgataag
ctggttctca cttctgttac tccagcttct tcggcacctg ttttacagac acctaaagct
acategicaa egitatatit igatagittg aeggitaaig eiggitaaigg iggittiett
420
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cattgcattc agatggatac atctgtcaac gccgctaatc aggttgtttc tgttggtgct
gatattgett ttgatgeega eeetaaattt tttgeetgtt tggttegett tgagtettet
540
teggtteega ctaccetece gactgeetat gatgtttate etttggatgg tegecatgat
ggtggttatt ataccgtcaa ggactgtgtg actattgacg tecttectcg tacg
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<211> 135
<212> PRT
<213> Homo sapiens
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Met Phe Gln Thr Phe Ile Ser Arg His Asn Ser Asn Phe Phe Ser Asp
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Lys Leu Val Leu Thr Ser Val Thr Pro Ala Ser Ser Ala Pro Val Leu
            20
                                25
Gln Thr Pro Lys Ala Thr Ser Ser Thr Leu Tyr Phe Asp Ser Leu Thr
                            40
                                                45
Val Asn Ala Gly Asn Gly Gly Phe Leu His Cys Ile Gln Met Asp Thr
                        55
                                            60
Ser Val Asn Ala Asn Gln Val Val Ser Val Gly Ala Asp Ile Ala
                    70
Phe Asp Ala Asp Pro Lys Phe Phe Ala Cys Leu Val Arg Phe Glu Ser
                                    90
Ser Ser Val Pro Thr Thr Leu Pro Thr Ala Tyr Asp Val Tyr Pro Leu
                                                    110
            100
                                105
Asp Gly Arg His Asp Gly Gly Tyr Tyr Thr Val Lys Asp Cys Val Thr
                                                125
        115
                            120
Ile Asp Val Leu Pro Arg Thr
                        135
    130
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<212> DNA
<213> Homo sapiens
<400> 2253
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teggegtatt ggtcaacgte gccaaccage aattegacaa tatggaaace gaaategage
agegeegeca egeegaggae egeeteaceg aatacetggg ecaactggaa gatategtet
ccgcacgcac cctggagctc aaggccagca accaacgctt gagccaatcc aacgatgagc
tggaagcggc aaagttgacc gccttgg
327
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<210> 2254

<211> 100

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Asn Tyr Lys Ser Leu Lys Pro Lys Leu Glu Asn Leu Ser Ser Leu Pro
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Pro Asp Ser Asp Arg Thr Ser Glu Val Tyr Leu His Glu Glu Leu Gln
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        35
Gln Asp Met Gln Lys Phe Lys Asn Glu Val Asn Thr Leu Glu Glu Glu
Phe Leu Ala Leu Lys Lys Glu Asn Val Gln Leu His Lys Glu Val Glu
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Glu Glu Met Glu Lys His Arg Ser Asn Ser Thr Glu Leu Ser Gly Thr
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90
Leu Thr Asp Gly Thr Thr Val Gly Asn Asp Asp Gly Leu Asn Gln
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Gln Ile Pro Arg Lys Glu Asn Glu Glu His Asp Arg Pro Ala Asp Lys
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Thr Ala Asn Glu Lys Asn Lys Val Lys Asn Gln Ile Tyr Pro Glu Ala
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Asp Phe Ala Asp Ser Met Glu Pro Ser Glu Ile Ala Ser Glu Asp Cys
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Arg Val Leu Tyr Gly Thr Pro Ile Glu Gly Phe Thr Val Asp Lys Ala
Lys Leu Asn Ser Leu Cys Met Val Gly Glu Met Glu Cys Phe Val Gln
Pro Val Glu Asn Asp Pro Ser Val Leu Val Leu Gly Ala Gly His Val
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Ser Arg Ala Ile Thr Asp Leu Leu Leu Phe Ile Gly Cys Arg Val Thr
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90

85

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Val Val Asp Asp Arg Pro Glu Tyr Val Val Pro Glu Phe Phe Asp Glu
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Arg Val Thr Arg Lys Cys Leu Pro Leu Glu Asn Phe Lys Asn Asp Leu
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Pro Leu Asp Glu Tyr Asn Gly Phe Ile Ile Val Thr Arg
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Ile Ala Val Phe Ala Ala Leu Ile Ala Val Leu Ala Val Ile Pro Pro
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Met Phe Met Val Gly Ala Val Pro Phe Ala Leu Gln Met Val Ala Val
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Met Leu Ala Pro Met Val Leu Gly Ser Ile Arg Gly Gly Cys Ala Val
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Gly Leu Tyr Ile Leu Val Gly Ala Leu Gly Leu Pro Val Phe Ser Gly
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Gly Ser Ser Gly Ile Gly Val Leu Val Gly Pro Thr Gly Gly Tyr Leu
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Gly Val Pro Leu Leu Ile Phe Pro Glu Gly Thr Arg Ser Arg Thr Gly
Ala Met Gly Thr Phe Lys Pro Gly Ala Ala Ala Leu Ala Ile Ser Arg
Gly Val Pro Val Ile Pro Ile Ala Leu Val Gly Ala Trp Ala Ala Met
                     70
Pro Ser Glu Gln Ala Arg Leu Pro Lys Gly Arg Pro Leu Val His Val
                                     90
Ala Ile Gly His Pro Met Asp Pro Val Pro Gly Glu Ile Ala His Gln
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Phe Ser Glu Arg Ile Arg Arg Gln Val Ile Glu Leu His Asp Gln Thr
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<400> 2267

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Ser Thr Cys
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Ser Gly Lys Ser Gln His Gly Arg His Met Leu Ala Glu Thr Leu Leu
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Glu Leu Pro Leu Ser Ile Asp Ala Tyr His Pro Arg Gly Gly Glu Gly
                            40
Gly Gly Arg Asn Gln Ile Arg Val Gln Asn Ala Pro Glu Gly Leu Gly
Asn Val Arg Leu His Leu Ala Gly Thr Val Asn Ala Thr Thr Asn Ile
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Thr His Leu Arg Gln Ala Leu Glu Ser Ser Cys Glu His Asn Ser Leu
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Asn Leu Tyr Arg Asp Arg Leu Lys Ala Thr Ala Thr Gln Gly Thr Glu
Met Val Lys Gln Ala Cys Pro Lys Ala Ser Leu Leu Asn Pro Asp Leu
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Glu Gly Gln Glu Thr Ser His Leu Arg Met Leu
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420
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Ile Gly Val Asn Ala Gly Ser Leu Asp Lys Arg Leu Leu Asp Lys Tyr
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Gly Ala Pro Thr Ala Glu Ala Met Val Glu Ser Ala Leu Trp Glu Ala
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Ser Leu Phe Glu Gln Tyr Gly Phe Arg Asp Phe Lys Ile Ser Val Lys
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His His Asp Pro Val Val Met Ile Arg Ala Tyr Glu Gln Leu Ala Ala
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Lys Cys Asp Tyr Pro Leu His Leu Gly Val Thr Glu Ala Gly Pro Ala
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Phe Gln Gly Thr Ile Lys Ser Ala Val Ala Phe Gly His Leu Leu Ala
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Glu Gly Ile Gly Asp Thr Ile Arg Val Ser Leu Ser Ala Asp Pro Val
Glu Glu Val Lys Val Gly Ile Lys Ile Leu Glu Ser Leu Asn Leu Arg
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Pro Arg Gly Leu Glu Ile Val Ser Cys
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Asp Ala Val Ala Arg Leu Ala Thr Tyr Ser Ala Arg Leu Ala Asp His
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Gln Gly Arg Val Ser Ala Arg Ile Gly Asp Leu Phe Gln Leu Val Ser
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Glu Ala Asp Phe Ile Arg His Leu Ala Gly Asp Glu Met Thr Asp Ala
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Gly His Ile Glu Arg Ala Leu Lys Ala Lys Ala Thr Arg Thr Gly Arg
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Val Ser Ala Arg Ile Leu Asp Asp Met Leu Ala Gly Val Ile Leu Ile
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Asp Thr Ala Gly Ala Ala Val Gly Lys Cys Asn Gly Leu Thr Val Leu
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Glu Val Gly Asp Ser Ala Phe Gly Val Pro Ala Arg Ile Ser Ala Thr
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                           40
Cys Phe Glu Arg Ala Ser Trp Ile Ala Gln Val Phe Leu Gln Glu Leu
                                           60
Glu Lys Thr Thr Asn Asn Ser Thr Ser Arg His Leu Lys Gly Cys His
                                       75
                   70
Pro Leu Asp Tyr Glu Leu Thr Tyr Phe Leu Glu Ala Ala Leu Gln Ser
                                   90
Ala Tyr Val Lys Asn Leu Lys Lys Gly Asn Ile Val Lys Gly Met Arg
                                                  110
                               105
            100
Glu Leu Arg Glu Val Leu Arg Thr Val Glu Thr Lys Ala Thr Gln Asn
                                              125
                           120
        115
Phe Lys Val Met Ala Ala Lys His Leu Ala Gly Val Leu Leu His Ser
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                       135
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145

155

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Pro Thr Ala Met Thr Pro Pro Val Leu Thr Thr Ala Glu Thr Ser Val
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Lys Pro Ser Val Ser Ala Phe Thr His Ser Pro Pro Glu Asn Thr Thr
                                             60
                        55
Gly Ile Ser Ser Thr Ile Ser Phe His Ser Arg Thr Leu Asn Leu Thr
                                        75
                    70
Asp Val Ile Glu Glu Leu Ala Gln Ala Ser Thr Gln Thr Leu Lys Ser
                                    90
Thr Ile Ala Ser Glu Thr Thr Leu Ser Ser Lys Ser His Gln Ser Thr
                                105
Thr Thr Arg Lys Ala Ile Ile Arg His Ser Thr Ile Pro Pro Phe Leu
                            120
Ser Ser Ser Ala Thr Leu Ile Pro Val Pro Ile Ser Pro Pro Phe Thr
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 Gly Arg Ser Ser Pro Gly Thr Ala Gln Pro Gly Pro Xaa Thr Lys Ser
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 Cys Cys Pro Pro Trp Leu Ser Ser Pro Pro Ala Ala Cys Leu Pro Ser
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 Ser Leu Leu Ser Pro Tyr Pro Val Leu Pro Ser Pro Ser Cys Lys Val
                                              60
                         55
 His Ala Thr Pro Gln Glu Glu Pro Gln Arg Leu Ser Ser Asp Pro Thr
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 Leu Ser Ala Pro Thr Leu Pro Pro His Gln Ile Leu Ser Thr Pro
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Glu Cys Met Glu Ser Glu Gly Thr Gly Pro Thr His Ser Pro Ser Ser
                            40
Pro Ala Val Leu Phe Ser Phe Leu His Cys Ala Phe Val Ser Phe Leu
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                        55
Gly Thr Ser Phe Thr Pro Ala Cys Ile Ser Ser Leu Ser His Gly Ser
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Pro Leu Ser Trp Ser Ser Gly Ala Val Pro Ile
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 ctttgtgcca gatattttac atggcaactt tcaagagggt gggcagctgg cctctgccgc
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gcctgacttg tggatagatg ctaagaagcc cttcagtttg aaagcagatg gtgagaatcc

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Pro Ser Glu Asp Ser Arg Gly Thr Phe Val Pro Asp Ile Leu His Gly
                             40
Asn Phe Gln Glu Gly Gly Gln Leu Ala Ser Ala Ala Pro Asp Leu Trp
Ile Asp Ala Lys Lys Pro Phe Ser Leu Lys Ala Asp Gly Glu Asn Pro
Asp Ile Leu Thr His Cys Glu His Asp Tyr Gly Glu Thr Thr Thr Arg
                85
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His Leu Leu Val Val Phe Phe Leu Val Gly Ala Val Pro Thr Ile Ser
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30
Ser Lys Phe Arg Arg Lys Phe Ile Val Lys Tyr Ser Ala Thr Ser Phe
Leu Leu Cys His Leu Gly Gly Gly Cys Asn Phe Pro His His Cys Arg
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Val Leu Arg Asn Arg Leu Gln Pro Cys His Arg Ser Ser Gln Leu His
Gln Ala Phe Gly Arg Ala Val Ile Arg Leu Pro Ala Lys Ala Gln Ala
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<212> DNA
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Ile Val His Pro Val Arg Val Asp Ala Gly Gly Ser Phe Leu Ser Tyr
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Glu Leu Trp Pro Arg Ala Leu Arg Lys Arg Asp Val Ser Val Arg Arg
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Asp Ala Pro Ala Phe Tyr Glu Leu Gln Tyr Arg Gly Arg Glu Leu Arg
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Phe Asn Leu Thr Ala Asn Gln His Leu Leu Ala Pro Gly Phe Val Ser
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Glu Thr Arg Arg Arg Gly Gly Leu Gly Arg Ala His Ile Arg Ala His
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Thr Pro Ala Cys His Leu Leu Gly Glu Val Gln Asp Pro Glu Leu Glu
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Gly Gly Leu Ala Ala Ile Ser Ala Cys Asp Gly Leu Lys Gly Val Phe
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Gln Leu Ser Asn Glu Asp Tyr Phe Ile Glu Pro Leu Asp Ser Ala Pro
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                                185
Pro Glu Arg Leu Ala Gln Arg Gly Asp Ser Sèr Ala Pro Ser Thr Cys
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Met	Val	Glu	Tyr	His	Gly	Gln	Pro	Gln	Val	Glu	Ser	Tyr	Val	Leu	Thr
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Cys	Lys	Trp	Gln	Lys	Ser	Ile	Asn	Met	Lys	Gly	Asp	Ala	His	Pro	Leu
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385					390					395					400
His	Asp	Gly	Ser	Gly 405	Asn	Asp	Суѕ	Glu	Pro 410	Val	Gly	Lys	Arg	Pro 415	Phe
Ile	Met	Ser	Pro 420	Gln	Leu	Leu	Tyr	Asp 425	Ala	Ala	Pro	Leu	Thr 430	Trp	Ser
Arg	Cys	Ser 435	Arg	Gln	Tyr	Ile	Thr 440	Arg	Phe	Leu	Asp	Arg 445	Gly	Trp	Gly
Leu	_	Leu	Asp	Asp	Pro		Ala	Lys	Asp	Ile		Asp	Phe	Pro	Ser
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		_	500			=		505		His		_	510		
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His	Phe 610		Ala	Met	Leu	Tyr 615	Lys	Gly	Gln	Leu	His 620	Thr	Trp	Val	Pro
Val		Asn	Asp	Val	Asn	Pro	Cys	Glu	Leu	His	Cys	Arg	Pro	Ala	Asn

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Cvs	Tvr	Gln	Val	Arg	Ala	Ser	Arq	Asp	Leu	Cys	Ile	Asn	Gly	Ile	Cys
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Live	y en	17=1		Cve	Acn	Dhe	Glu		Asp	Ser	Glv	Ala	Met	Glu	Asp
Буз	W211		Gry	Cys	rsp	£ 11C	680				,	685			
_	_	675		.	•••	~1		~ 3	C ~ ~	mh	~	-	Th-	3753	cor
Arg		GIY	Val	Cys	His		Asn	GIY	ser	Inr		HIS	1111	Val	SEL
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Gly	Thr	Phe	Xaa	Arg	Arg	Pro	Arg	Val	Xaa	Gly	Tyr	Val	Asp	Val	
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Leu	Ile	Pro	Ala	Gly	Ala	Arg	Glu	Ile	Arg	Ile	Gln	Glu	Val	Ala	Glu
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Ala	Ala	Asn	Phe	Leu	Ala	Leu	Ara	Ser	Glu	Asp	Pro	Glu	Lys	Tyr	Phe
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T	3	c1		~~~	Th.	Tla	Gl n		λen	Gly	λen	TVY		Val	Ala
Leu	ASII		Gry	пр	1111	TIE	760	115	7311	01,		765			
		755		_,	_			•	~ 3		·		N am	T 011	Thr
Gly		Thr	Phe	Thr	Tyr		Arg	Arg	GIĀ	ASI		GIU	ASII	Leu	1111
	770					775					780				_
Ser	Pro	Gly	Pro	Thr	Lys	Glu	Pro	Val	Trp	Ile	Gln	Val	Pro	Ala	
785					790					795					800
Arg	Gly	Pro	Gly	Gly	Gly	Ser	Arg	Gly	Gly	Val	Pro	Arg	Pro	Ser	Thr
_	_		_	805	_				810					815	
Leu	His	Glv	Ara	Ser	Arg	Pro	Glv	Gly	Val	Ser	Pro	Gly	Ser	Val	Thr
		1	820		5		•	825				_	830		
Glas	Dro	Glv		Glu	Pro	Glv	Pro		Δla	Δla	Ala	Ser	Thr	Ser	Val
GIU	110	835	001	0.14		,	840					845			
	5		.	7	m	Dwa		T 011	17-1	77-	λla		ніс	Arg	Glv
Ser		ser	Leu	ьys	пр		ASII	ren	Val	Ala		Val	1112	AL 9	Gry
	850	_				855		_			860	•	•	: -	.
Gly	Trp	Gly	Gln	Ala		Leu	Gly	Leu	GIÀ		Trp	Arg	Arg	His	
865					870					875			_		880
Val	Leu	Met	Gly	Pro	Arg	Leu	Pro	Thr	Gln	Leu	Leu	Phe	Gln	Glu	Ser
				885					890					895	
Asn	Pro	Gly	Val	His	Tyr	Glu	Tyr	Thr	Ile	His	Arg	Glu	Ala	Gly	Gly
		-	900					905					910		
His	Asp	Glu	Val	Pro	Pro	Pro	Val	Phe	Ser	Trp	His	Tyr	Gly	Pro	Trp
	E	915					920			-		925	•		•
ጥኮ~	Lve		Thr	บลใ	Thr	Cvs		Ara	Glv	Val	Gln	Ara	Gln	Asn	Val
1111	-	Cys	1111	V 44 2		935	0-7	3	U -1		940	3			
	930	.	~ 3	.	61 -		a1	D	17-1	7.00		C111	ui.c	Cys	n en
-	Cys	Leu	GIU	Arg		AId	GIÀ	PIO	vai		GIU	Gru	1113	Cys	960
945				_	950	_			_	955	-		~1	61 -	
Pro	Leu	Gly	Arg		Asp	Asp	GIn	Gin		ьys	Cys	Ser	GIU	Gln	PIO
				965					970					975	
Cys	Pro	Ala	Arg	Trp	Trp	Ala	Gly	Glu	Trp	Gln	Leu	Cys	Ser	Ser	Ser
			980					985					990		
Cvs	Glv	Pro	Glv	Glv	Leu	Ser	Arg	Arg	Ala	Val	Leu	Cys	Ile	Arg	Ser
-3-		995	•	•			1000					1009			
17 a 1	Glv		Acn	Glu	Gln	Ser			Glu	Pro	Pro	Ala	Cvs	Glu	His
va1	1010		ى			1015					1020		- 2 -		
• .			D	D	m\			D=-	~··-	7 c=			17= 1	Dro	Cve
		Arg	PIO	PTO			Inr	PTO	Cys			птр	val	Pro	
1025			_		1030		_	_	_	1039				m\	1040
Pro	Ala	Thr	Trp			Gly	Asn	Trp			Cys	Ser	val	Thr	cys
				1045					1050					1055	
Gly	Glu	Gly	Thr	Gln	Arg	Arg	Asn	Val	Leu	Cys	Thr	Asn	Asp	Thr	Gly
-		-			_	-									

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Val Pro Cys A 1075	sp Glu Ala	Gln Gln 108		Ser Glu	Val Thr 1085	Cys Ser
Leu Pro Leu C	ys Arg Trp	Pro Leu 1095	Gly Thr	Leu Gly		Gly Ser
Gly Ser Gly S	111	0		1115		1120
Pro His His L	1125		1130)		1135
	140		1145		115	0
Pro Gly Pro V		116	0		1165	
Asn Phe His G		1175		1180)	
Asp Leu Ala G	119	0		1195		1200
Ala Ala Pro S	1205		1210)		1215
	220		1225		123	0
Ser Gln Ala G 1235		124	0		1245	
Asn Pro Leu I 1250		1255		1260)	
Pro Asp Leu G 1265	127	D		1275		1280
Gly Leu Gln T	1285		1290)		1295
	300		1305		131	0
Asn Glu Val P		132	0		1325	•
His Leu Pro P		1335		1340)	
Gly Ser Thr H	135	D		1355		1360
Gly Gly Thr V	1365		1370)		1375
Val Asp Ser G	.380		1385		139	0
Pro Pro Ile A 1395		140	0		1405	
Glu Pro Gly T		1415		1420)	
Leu Gln Thr V			Thr Phe	Leu Pro 1435	Thr Thr	Leu Thr 1440
1425 Gly Leu Gly H	143 is Met Pro		Ala Leu		Glv Pro	
	1445		1450)		1455
Gln Pro Glu S	er Leu Ser 460	Pro Glu	Val Pro 1465	Leu Ser	Ser Arg	Leu Leu)
Ser Thr Pro A	la Trp Asp	Ser Pro	Ala Asn	Ser His		
Thr Gln Pro L	eu Ala Pro			Ala Gly		Ala Asp

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1495
Pro Leu Val Val Arg Asn Ala Ser Trp Gln Ala Gly Asn Trp Ser Glu
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Cys Ser Thr Thr Cys Gly Leu Gly Ala Val Trp Arg Pro Val Arg Cys
            1525 1530 1535
Ser Ser Gly Arg Asp Glu Asp Cys Ala Pro Ala Gly Arg Pro Gln Pro
         1540 1545 1550
Ala Arg Arg Cys His Leu Arg Pro Cys Ala Thr Trp His Ser Gly Asn
      1555 1560 1565
Trp Ser Lys Cys Ser Arg Ser Cys Gly Gly Gly Ser Ser Val Arg Asp
 1570 1575 1580
Val Gln Cys Val Asp Thr Arg Asp Leu Arg Pro Leu Arg Pro Phe His
              1590
                              1595
Cys Gln Pro Gly Pro Ala Lys Pro Pro Ala His Arg Pro Cys Gly Ala
           1605 1610 1615
Gln Pro Cys Leu Ser Trp Tyr Thr Ser Ser Trp Arg Glu Cys Ser Glu
         1620 1625 1630
Ala Cys Gly Gly Glu Gln Gln Arg Leu Val Thr Cys Pro Glu Pro
                    1640 1645
Gly Leu Cys Glu Glu Ala Leu Arg Pro Asn Thr Thr Arg Pro Cys Asn
  1650 1655
                                 1660
Thr His Pro Cys Thr Gln Trp Val Val Gly Pro Trp Gly Gln Cys Ser
                              1675 1680
1665 1670
Ala Pro Cys Gly Gly Val Gln Arg Arg Leu Val Lys Cys Val Asn
                           1690
            1685
Thr Gln Thr Gly Leu Pro Glu Glu Asp Ser Asp Gln Cys Gly His Glu
                        1705 1710
        1700
Ala Trp Pro Glu Ser Ser Arg Pro Cys Gly Thr Glu Asp Cys Glu Pro
      1715 1720 1725
Val Glu Pro Pro Arg Cys Glu Arg Asp Arg Leu Ser Phe Gly Phe Cys
                  1735 1740
Glu Thr Leu Arg Leu Leu Gly Arg Cys Gln Leu Pro Thr Ile Arg Thr
               1750 1755 1760
Gln Cys Cys Arg Ser Cys Ser Pro Pro Ser His Gly Ala Pro Ser Arg
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            1765
Gly His Gln Arg Val Ala Arg Arg
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ttgaggacat ttgtacagag tcaggtaact ggaggaactg gactacaacc ctgctcagtg
cagccagtgt gactgagege etectgagag ccaggtggat tetgecetca aggatecatg
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300
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```
gaggggtcca tgggagccca gaggggagca tctgaccagg ctcaggggaa ggaatgtgtc
cagcagagtc acagaggagc agtatgagtt agccaggtag gggacattcc aggcagggga
420
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actgctacag ggtccatata ggaaaataat gggaaataca tttggacagg aggtggggtc
tgtaacaaag gactttaatt ccaggttaag gaatctggat gttaaaacaa cattagctgc
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Lys Ser Phe Val Thr Asp Pro Thr Ser Cys Pro Asn Val Phe Pro Ile
                                25
Ile Phe Leu Tyr Gly Pro Cys Ser Ser Gln Pro Leu Ile Leu Glu Leu
                          40
Gly Thr Gly Ser Ala Thr Ser Met Leu Leu Ser Cys Cys Ser Pro Ala
                        55
                                            60
Trp Asn Val Pro Tyr Leu Ala Asn Ser Tyr Cys Ser Ser Val Thr Leu
                                        75
                    70
Leu Asp Thr Phe Leu Pro Leu Ser Leu Val Arg Cys Ser Pro Leu Gly
                                    90
Ser His Gly Pro Leu Cys Val Pro Val Val Ala Gln Gln Lys Pro Pro
            100
                                105
Ala Asp Gly Trp Val Ser Cys Pro Glu His Gly Ser Leu Arg Ala Glu
                            120
Ser Thr Trp Leu Ser Gly Gly Ala Gln Ser His Trp Leu His
                                            140
    130
                        135
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ccgagcgccg ccgcctccgg catggatcat tgcgtgacgg tggagcgcga gctggagaag
gtgctgcaca agttctcggg ctacgggcag ctgtgcgagc gcggcctgga ggagctcatc
180
```

```
gactacaccg gcggtctcaa gcaccagatc ctgcagagcc acggccaaga tgctgaatta
tcagggacac tttcacttgt tttgacacag ggctgtaaaa gaataanaag gggatactgg
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ccattgatga ggattcactt t
381
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                                25
Ile Asp Tyr Thr Gly Gly Leu Lys His Gln Ile Leu Gln Ser His Gly
Gln Asp Ala Glu Leu Ser Gly Thr Leu Ser Leu Val Leu Thr Gln Gly
                        55
                                            60
    50
Cys Lys Arg Ile Kaa Arg Gly Tyr Trp Phe Lys Asn Trp Pro Pro Thr
                                        75
                    70
Thr Lys Thr Ser Thr Ala Val Phe Leu Gly Leu Glu Lys Pro Leu Met
                                    90
Arg Ile His Phe
            100
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<211> 573
<212> DNA
<213> Homo sapiens
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ttcggcagca ccgactcatt atcggcaccg acctagtcaa ttgccaccac ctgcttatgc
aagtggtcga tagaagcccc agccggctta agccagttct ggaaaaccac cacatatcgc
acatgttcgt tgtgacgatg cagctgagcc attgaatcga cggtcagcgc catgaacgcc
cgatgctcgt tgacggtaag actcgccgac ccagcaacgt cggcggttgt cgtgccctca
toggtgtaat ggcgacgage gacgatgacg toatgtooge oggcaaagaa ggctgoggaa
geotegegta attettgggg accgaggtee teggegegee ggtetgaece cacegeettg
420
aacttggcgt taaggaccga cctcacgtga gcctcccctg acgggttaga caggtattcc
tectgecagt ecegegetge ecgaggeaag eteatecece agttgagetg ecaatacege
540
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cacgacagga tctcgaaaag attggggacg cgt
573
<210> 2292
<211> 140
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Asn Pro Ser Gly Glu Ala His Val Arg Ser Val Leu Asn Ala Lys Phe
Lys Ala Val Gly Ser Asp Arg Arg Ala Glu Asp Leu Gly Pro Gln Glu
Leu Arg Glu Ala Ser Ala Ala Phe Phe Ala Gly Gly His Asp Val Ile
Val Ala Arg Arg His Tyr Thr Asp Glu Gly Thr Thr Thr Ala Asp Val
                                         75
                    70
Ala Gly Ser Ala Ser Leu Thr Val Asn Glu His Arg Ala Phe Met Ala
                85
                                     90
Leu Thr Val Asp Ser Met Ala Gln Leu His Arg His Asn Glu His Val
                                105
Arg Tyr Val Val Val Phe Gln Asn Trp Leu Lys Pro Ala Gly Ala Ser
                            120
Ile Asp His Leu His Lys Gln Val Val Ala Ile Asp
    130
                        135
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.<400> 2293
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gtqaacactq tcgctaagaa ctggttgaac cggctcaaca cgccggatat gaaacccact
gaggagatca ageggeagtt ceaaggtetg cattggttgg gaegtaagta tgggeteaac
cacggagagt totatottga cgacgagcag tgggccacgc tcatggccgg gtcctctttc
gaggcgaatc cgcgcattaa gagcaacttt gattccgagg gcgctgttgt ggatccggat
tecqattcac ttgctggggc tgatcgagat gcccgaggtg cttcggatgc atgccttc
<210> 2294
<211> 115
<212> PRT
<213> Homo sapiens
<400> 2294
Met Glu Ala Ala Leu Val Gly Ala His Lys Thr Gly Gly Cys Pro Leu
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-10
Val Asn Thr Val Ala Lys Asn Trp Leu Asn Arg Leu Asn Thr Pro Asp
Met Lys Pro Thr Glu Glu Ile Lys Arg Gln Phe Gln Gly Leu His Trp
                                                 45
                            40
Leu Gly Arg Lys Tyr Gly Leu Asn His Gly Glu Phe Tyr Leu Asp Asp
Glu Gln Trp Ala Thr Leu Met Ala Gly Ser Ser Phe Glu Ala Asn Pro
                    70
Arg Ile Lys Ser Asn Phe Asp Ser Glu Gly Ala Val Val Asp Pro Asp
                                    90
Ser Asp Ser Leu Ala Gly Ala Asp Arg Asp Ala Arg Gly Ala Ser Asp
                                105
Ala Cys Leu
        115
<210> 2295
<211> 546
<212> DNA
<213> Homo sapiens
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ggggcgtatg gctgctcggt cattaccgca ctggtagcgc aaaatacgcg cggcgtgcag
120
teggtgtate gtategaace ggattttgte ggtgcacaae tggactetgt gtteagegat
gtccgcattg attccaccaa aatcggcatg ctggcagagg cggatatcgt ggaagcggtc
240
geggagegee teaaacatta tegegttaaa aacgtggtae ttgataeggt gatgetggeg
300
aaaagtggcg atccgctgct atctcctgct gctgtcgaaa ctctgcgaaa acaccttctg
ccacacgtcg cgctgatcac gccaaatttg ccggaggcgg cggcgctgct ggatgcgcct
catgecegta eegageaega gatgaaagag eaggggegeg eaettetgge gettggetge
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<211> 182
<212> PRT
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Gly Thr Asp Pro Ser Gly Gly Ala Gly Ile Arg Xaa Asp Leu Xaa Thr
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 1
Phe Ser Ala Leu Gly Ala Tyr Gly Cys Ser Val Ile Thr Ala Leu Val
                                 25
Ala Gln Asn Thr Arg Gly Val Gln Ser Val Tyr Arg Ile Glu Pro Asp
```

```
40
Phe Val Gly Ala Gln Leu Asp Ser Val Phe Ser Asp Val Arg Ile Asp
                                          60
Ser Thr Lys Ile Gly Met Leu Ala Glu Ala Asp Ile Val Glu Ala Val
                   70
Ala Glu Arg Leu Lys His Tyr Arg Val Lys Asn Val Val Leu Asp Thr
                                  90
Val Met Leu Ala Lys Ser Gly Asp Pro Leu Leu Ser Pro Ala Ala Val
                              105
Glu Thr Leu Arg Lys His Leu Leu Pro His Val Ala Leu Ile Thr Pro
                          120
Asn Leu Pro Glu Ala Ala Ala Leu Leu Asp Ala Pro His Ala Arg Thr
                       135
Glu His Glu Met Lys Glu Gln Gly Arg Ala Leu Leu Ala Leu Gly Cys
                                      155
                   150
Glu Ala Val Leu Met Lys Gly Gly His Leu Asp Asp Pro Glu Ser Pro
               165
                                  170
Asp Trp Leu Phe Thr Arg
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<210> 2297
<211> 414
<212> DNA
<213> Homo sapiens
<400> 2297
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gaattttccc acgttggggg gggggggttc ggactttttc ccccaaaaac ccccccccc
120
aaaggaaaaa ccccttttt tttttttt ttttatacac atgagggtct ctggttaata
aatgttgaga tgtagggtta ggtgagatta aacaggttct ttttttcatg atttctcgga
gtetttatga tgetecacae cagtaettet caaagetgae tgtgtataca aaacaetggg
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414
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Lys Lys Arg Glu Phe Ser His Val Gly Gly Gly Phe Gly Leu Phe
1
Pro Pro Lys Thr Pro Pro Pro His Pro Pro Lys Gly Arg Lys Ala Gly
                              25
                                                 30
           20
Pro Lys Pro Pro Gly Pro Pro Gly Gly Ala Lys Gly Lys Thr Pro
                          40
Phe Phe Phe Phe Phe Tyr Thr His Glu Gly Leu Trp Leu Ile Asn
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60
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   50
Val Glu Met
65
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<212> DNA
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<400> 2299
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cegetttcae tettegaatt tgtgettage tettttettg taccetgega etegtgacea
acatgetgtg atgtgtgccg agggaggaat tggtcagcta cacaacetgg atettaccac
agtttggata tgactgaggc tctccaatgg gccagatatc actggcgacg gctgatcaga
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acaacaaagt acacacttct gaattttgtg ccaagaaatt tatttgaaca atttcacaga
getgecaatt tatattteet gtteetagtt gteetgaact gggtaeettt ggtagaagee
540
ttccaaaagg aaatcaccat gttgcctctg gtggtggtcc ttacaattat cgcaattaaa
gatggcctgg aagattatcg gaaatacaaa attgacaaac agatcaataa tttaataact
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tecactgate cagatggaat etgteacatt gagaettetg gtettgatgg agagageaat
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987
<210> 2300
<211> 266
<212> PRT
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Met Thr Glu Ala Leu Gln Trp Ala Arg Tyr His Trp Arg Arg Leu Ile
                                     10
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Arg Gly Ala Thr Arg Asp Asp Ser Gly Pro Tyr Asn Tyr Ser Ser
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Leu Leu Ala Cys Gly Arg Lys Ser Ser Gln Ile Pro Lys Leu Ser Gly
                            40
Arg His Arg Ile Val Val Pro His Ile Gln Pro Phe Lys Asp Glu Tyr
                        55
Glu Lys Phe Ser Gly Ala Tyr Val Asn Asn Arg Ile Arg Thr Thr Lys
                    70
                                        75
Tyr Thr Leu Leu Asn Phe Val Pro Arg Asn Leu Phe Glu Gln Phe His
                                    90
Arg Ala Ala Asn Leu Tyr Phe Leu Phe Leu Val Val Leu Asn Trp Val
                                105
Pro Leu Val Glu Ala Phe Gln Lys Glu Ile Thr Met Leu Pro Leu Val
                            120
Val Val Leu Thr Ile Ile Ala Ile Lys Asp Gly Leu Glu Asp Tyr Arg
                        135
Lys Tyr Lys Ile Asp Lys Gln Ile Asn Asn Leu Ile Thr Lys Val Tyr
                                        155
                    150
Ser Arg Lys Glu Lys Lys Tyr Ile Asp Arg Cys Trp Lys Asp Val Thr
                165
                                    170
Val Gly Asp Phe Ile Arg Leu Ser Cys Asn Glu Val Ile Pro Ala Asp
                                185
Met Val Leu Leu Phe Ser Thr Asp Pro Asp Gly Ile Cys His Ile Glu
                            200
Thr Ser Gly Leu Asp Gly Glu Ser Asn Leu Lys Gln Arg Gln Val Val
                                            220
                        215
Arg Gly Tyr Ala Glu Gln Asp Ser Glu Val Asp Pro Glu Lys Phe Ser
                                        235
Ser Arg Ile Glu Cys Glu Ser Pro Asn Asn Asp Leu Ser Arg Phe Arg
                245
Gly Phe Leu Glu His Ser Asn Lys Glu Arg
            260
<210> 2301
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<212> DNA
<213> Homo sapiens
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nncgttgcca cgttgaattc aacacaaacg caanactaca tgcccgattt ccccaccccg
gagggggaga atgaggaatc ctggttcgtc aaagaagttg aacgcggttt gcactaccga
ttccccgagg gcattcccga tgacgtacgc aagcaggcag attatgaagt agggattatt
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aataacggaa ttcgagtggg ccccgggcgt
390
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<210> 2302

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<212> PRT
<213> Homo sapiens
<400> 2302
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                                    10
Ser Glu Glu Met Xaa Ala Thr Ser Ser Ala Xaa Phe Pro Glu Ala Cys
                                25
            20
Asp Asn Thr Met Glu Ile Ala Glu Xaa Val Ala Thr Leu Asn Ser Thr
                            40
Gln Thr Gln Xaa Tyr Met Pro Asp Phe Pro Thr Pro Glu Gly Glu Asn
Glu Glu Ser Trp Phe Val Lys Glu Val Glu Arg Gly Leu His Tyr Arg
Phe Pro Glu Gly Ile Pro Asp Asp Val Arg Lys Gln Ala Asp Tyr Glu
                85
Val Gly Ile Ile Thr Gln Met Gly Phe Pro Gly Tyr Phe Leu Val Val
                                105
            100
Ala Asp Phe Ile Asn Trp Ala Lys Asn Asn Gly Ile Arg Val Gly Pro
                            120
Gly Arg
    130
<210> 2303
<211> 638
<212> DNA
<213> Homo sapiens
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gcacctgtgt ttggctacct gggcgaccga catagccgca aggctaccat gagcttcggt
atcttgctgt ggtcaggagc tggcctctct agctccttca tctccccccg gtattcttgg
ctettettee tgteeegggg categaggge aetggetegg ceagetacte caecategeg
cccaccgtcc tgggcgacct cttcgtgagg gaccagcgca cccgcgtgct ggctgtcttc
tacatettta teecegttgg aagtggtetg ggetaegtge tgggggtegge tgtgaegatg
ctgactggga actggcgctg ggccctccga gtcatgccct gcctggaggc cgtggccttg
atcetgetta teetgetggt teeagaceea eeceggggag etgeegagae acagggggag
ggggccgtgg gaggcttcag aagcagctgg tgtgaggacg tcagatacct ggggaaaaac
tggagttttg tgtggtcgac cctcggagtg accgccatgg cctttgtgac tggagccctg
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638
<210> 2304
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<212> PRT
<213> Homo sapiens
<400> 2304
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Leu Leu Ser Ala Pro Val Phe Gly Tyr Leu Gly Asp Arg His Ser
                                25
Arg Lys Ala Thr Met Ser Phe Gly Ile Leu Leu Trp Ser Gly Ala Gly
                            40
Leu Ser Ser Ser Phe Ile Ser Pro Arg Tyr Ser Trp Leu Phe Phe Leu
                        55
Ser Arg Gly Ile Glu Gly Thr Gly Ser Ala Ser Tyr Ser Thr Ile Ala
                    70
Pro Thr Val Leu Gly Asp Leu Phe Val Arg Asp Gln Arg Thr Arg Val
Leu Ala Val Phe Tyr Ile Phe Ile Pro Val Gly Ser Gly Leu Gly Tyr
                                105
Val Leu Gly Ser Ala Val Thr Met Leu Thr Gly Asn Trp Arg Trp Ala
                            120
                                                125
Leu Arg Val Met Pro Cys Leu Glu Ala Val Ala Leu Ile Leu Leu Ile
                        135
Leu Leu Val Pro Asp Pro Pro Arg Gly Ala Ala Glu Thr Gln Gly Glu
                    150
                                        155
Gly Ala Val Gly Gly Phe Arg Ser Ser Trp Cys Glu Asp Val Arg Tyr
                                                        175
                165
                                    170
Leu Gly Lys Asn Trp Ser Phe Val Trp Ser Thr Leu Gly Val Thr Ala
                                185
Met Ala Phe Val Thr Gly Ala Leu Gly Phe Trp Ala Pro Lys Phe Leu
                            200
                                                205
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Leu Glu Ala Arg
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<211> 340
<212> DNA
<213> Homo sapiens
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teggaceage acaetttgae egtegtggte geetegtgae atggggtaae gegaaceteg
tegeteetgt tettgacete tteegtgeee ceattgacaa egategggea agtteaetgg
ccegcaacgc tattggtgac gcagcactcg cagctggtct cgaccgactc gtccacacca
cggcgtcggt gcgcgacgag ggcgatgagt tggtcgtcgt tactcgcagc gctgctgccg
ccgcacgcaa ttccatgacg acaacgtgga gttggcgcgc
340
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<210> 2306

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70
Pro Pro Cys Pro Leu His Gly Gly Ser Arg Gly Pro Ser Thr Phe Leu
                                    90
Pro Glu Pro Pro Asp Thr Tyr Glu Glu Asp Gly Asp Glu Ser Gly Asn
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            100
Gly Leu Pro Lys Thr Lys Glu Ala
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<211> 395
<212> DNA
<213> Homo sapiens
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cactetetge cetgggeege ggggeetgae tgggtteeca ceteeteeta eccaetgggg
tettttccag caggeacagg gatteeteat gggggaggea gageecacce gtetgteete
ggtgacggcc tgagctgtgc acggcctccc ctgccctcct gttctcaggc cccccagggt
ccatccagcc ccagcgtgtg gcgttctggc tcttccctgg agtctcctcc cagaccacgc
gactccactc acactgtgcc tagcggactg tgtggttgat gcagccggct cacttgagtg
tgttgtgtta tgcccacaac aggcttgccg tcacc
395
<210> 2310
<211> 108
<212> PRT
<213> Homo sapiens
Met Gly Pro Cys Ser Glu His Ile Pro Met Arg Ala Ala Cys Pro Val
His Ser Leu Pro Trp Ala Ala Gly Pro Asp Trp Val Pro Thr Ser Ser
                                25
Tyr Pro Leu Gly Ser Phe Pro Ala Gly Thr Gly Ile Pro His Gly Gly
                            40
Gly Arg Ala His Pro Ser Val Leu Gly Asp Gly Leu Ser Cys Ala Arg
Pro Pro Leu Pro Ser Cys Ser Gln Ala Pro Gln Gly Pro Ser Ser Pro
                                        75
                    70
Ser Val Trp Arg Ser Gly Ser Ser Leu Glu Ser Pro Pro Arg Pro Arg
Asp Ser Thr His Thr Val Pro Ser Gly Leu Cys Gly
                                105
<210> 2311
<211> 378
<212> DNA
<213> Homo sapiens
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gatgtcggca gtcccatggg cggcagcgcg gacgtggctc tcgaaacggc cgatgctgcc
gtccttcacg gacgggtggg ggacgtcttc gcgatgatcg ccctatcgaa gcgaaccatg
240
gccaacattc gacagaacat cgcgatcgcg atcgggctaa aggcggtgtt ccttgtaacg
acceptcgtcg gcatcacggg gctttggcct gcaatcctcg ccgatacggg gaccacggag
cttgtgacca tgaacgcg
378
<210> 2312
<211> 126
<212> PRT
<213> Homo sapiens
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Val His Ala Glu Met Leu Pro Gln Asp Lys Gln Arg Val Val Gly Glu
                                     10
 1
Leu Lys Arg Gln Gly Phe Ser Val Ile Lys Val Gly Asp Gly Ile Asn
                                25
            20
Asp Cys Asp Ala Leu Ala Ala Asp Val Gly Ser Pro Met Gly Gly
                            40
Ser Ala Asp Val Ala Leu Glu Thr Ala Asp Ala Ala Val Leu His Gly
                        55
Arg Val Gly Asp Val Phe Ala Met Ile Ala Leu Ser Lys Arg Thr Met
                                         75
Ala Asn Ile Arg Gln Asn Ile Ala Ile Ala Ile Gly Leu Lys Ala Val
                                     90
                85
Phe Leu Val Thr Thr Val Val Gly Ile Thr Gly Leu Trp Pro Ala Ile
                                 105
Leu Ala Asp Thr Gly Thr Thr Glu Leu Val Thr Met Asn Ala
                            120
       115
<210> 2313
<211> 669
<212> DNA
<213> Homo sapiens
<400> 2313
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atccgaatca tggctcgtcc tggttggcct ggaaccatta acgtacgcct cacccatcgc
ttaagcgacg ccggtctagc tgtcgaagtc accgcgcgca atgtcggtac gacagcgggg
ccgcttggat acgcagcaca cccctatctc tgtctgggtg gcaccatcga cgactggaca
240
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gtcgacgccc cgtttacctc gtggttacag gtcgatgatc ggctgctacc aatgcagatg
cgcgagatgg acagcatcca cgcgctgaac ggtctcacgg gcggacagcg caccttcgat
accepttaca cogtgaaagg aggacggaac cgtcggatcg cccgcatggc gtatccgggt
ctcaacggtg aaacgagcca cgaattgtgg ggcgacgccg cgatgagctg ggtgcaagtc
tacactccag acgaccgcca cagtctggcc atcgagccaa tgacctgcgg cccagatgca
tttaatgagg gcccgaccca cggtgacgtc attcgactgg agcccggtaa tgacgtcaca
ctgcactggg gcatcgccta acccgcggaa gctcgaaagg acaaggacgg gaaggcagga
ttcacgcgt
669
<210> 2314
<211> 206
<212> PRT
<213> Homo sapiens
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                                    10
Val Thr Gln Thr Ile Arg Ile Met Ala Arg Pro Gly Trp Pro Gly Thr
                                25
Ile Asn Val Arg Leu Thr His Arg Leu Ser Asp Ala Gly Leu Ala Val
                            40
Glu Val Thr Ala Arg Asn Val Gly Thr Thr Ala Gly Pro Leu Gly Tyr
                        55
                                            60
Ala Ala His Pro Tyr Leu Cys Leu Gly Gly Thr Ile Asp Asp Trp Thr
                                        75
                   70
Val Asp Ala Pro Phe Thr Ser Trp Leu Gln Val Asp Asp Arg Leu Leu
                                    90
Pro Met Gln Met Arg Glu Met Asp Ser Ile His Ala Leu Asn Gly Leu
           100
                                105
Thr Gly Gly Gln Arg Thr Phe Asp Thr Ala Tyr Thr Val Lys Gly Gly
                            120
Arg Asn Arg Arg Ile Ala Arg Met Ala Tyr Pro Gly Leu Asn Gly Glu
                                            140
                        135
Thr Ser His Glu Leu Trp Gly Asp Ala Ala Met Ser Trp Val Gln Val
                   150
                                        155
Tyr Thr Pro Asp Asp Arg His Ser Leu Ala Ile Glu Pro Met Thr Cys
                                    170
               165
Gly Pro Asp Ala Phe Asn Glu Gly Pro Thr His Gly Asp Val Ile Arg
                               185
Leu Glu Pro Gly Asn Asp Val Thr Leu His Trp Gly Ile Ala
                                                205
                            200
<210> 2315
<211> 546
<212> DNA
<213> Homo sapiens
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acceaaggce gaccaatteg categataag geggtegett ateacaette tegeggegtg
ceggtacatg aactgtttga cegagtgege egeagettag acegagtgeg tgaacagggg
cacaacgtct actacgacga acagcgtgca tggcttgacg attactgggc aacggctgat
gttgaggtcg agggtgcccc gaccggtatt cagcaggctg tcaggtggaa ccttttccag
attgctcagg catcagcccg tgcagatcaa cttggcattc cggcaaaggg tgtaaccggg
tcaggctatg aaggccacta cttttgggac actgaggttt atgtcatccc gatgttgacc
tacactcatc caagaatcgc tgagaatgcg ctgagattcc gggtgaatac ccttccgcaa
getegacgee gggetaagga attgtetgaa egaggegeee tttteeegtg gegaacaate
540
accggt
546
<210> 2316
<211> 182
<212> PRT
<213> Homo sapiens
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Xaa Ala Ser Leu Ile Asp Thr Glu Pro Gly Met Gly Lys Arg Val Tyr
                                     10
Arg Val Glu Ala Thr Gln Gly Arg Pro Ile Arg Ile Asp Lys Ala Val
Ala Tyr His Thr Ser Arg Gly Val Pro Val His Glu Leu Phe Asp Arg
Val Arg Arg Ser Leu Asp Arg Val Arg Glu Gln Gly His Asn Val Tyr
                                             60
Tyr Asp Glu Gln Arg Ala Trp Leu Asp Asp Tyr Trp Ala Thr Ala Asp
                                         75
Val Glu Val Glu Gly Ala Pro Thr Gly Ile Gln Gln Ala Val Arg Trp
                 85
Asn Leu Phe Gln Ile Ala Gln Ala Ser Ala Arg Ala Asp Gln Leu Gly
                                 105
Ile Pro Ala Lys Gly Val Thr Gly Ser Gly Tyr Glu Gly His Tyr Phe
                             120
Trp Asp Thr Glu Val Tyr Val Ile Pro Met Leu Thr Tyr Thr His Pro
                                             140
                         135
Arg Ile Ala Glu Asn Ala Leu Arg Phe Arg Val Asn Thr Leu Pro Gln
                                         155
                     150
Ala Arg Arg Arg Ala Lys Glu Leu Ser Glu Arg Gly Ala Leu Phe Pro
                                     170
                 165
 Trp Arg Thr Ile Thr Gly
             180
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<210> 2317
<211> 496
<212> DNA
<213> Homo sapiens
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agggttctgc acggagtttt ggatagtccg tccagtcgcc actggcaagg cgcgaccagg
cagetgetga egetgetgtg atgeegagga gateggagae gattegtggg tgeatetgee
gggtcagttc gatcagegeg gtcgttcgag egetteetga acgeageece tgetggegea
gacgtcggct gagtgggcct ggtgtgagat gcaaccccgg attcctgcca ggaaagagcc
atcoctcggg tcggtgtctc gatgtgtcag cgagctcggc gatcgcattc ccgaggacct
cgggcagttc gattggctcg getccgatgg tgagcttccc cggtcgtgat gtcacgtcga
cctgctcacg ggtgagcgcg acgatgcgag tgaggtggag gccgtagagg agcacgagca
acccagcggc acgcgt
496
<210> 2318
<211> 108
<212> PRT
<213> Homo sapiens
<400> 2318
Met Pro Arg Arg Ser Glu Thr Ile Arg Gly Cys Ile Cys Arg Val Ser
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1
Ser Ile Ser Ala Val Val Arg Ala Leu Pro Glu Arg Ser Pro Cys Trp
            20
Arg Arg Arg Leu Ser Gly Pro Gly Val Arg Cys Asn Pro Gly Phe
                            40
Leu Pro Gly Lys Ser His Pro Ser Gly Arg Cys Leu Asp Val Ser Ala
                        55
                                            60
Ser Ser Ala Ile Ala Phe Pro Arg Thr Ser Gly Ser Ser Ile Gly Ser
                                        75
                    70
Ala Pro Met Val Ser Phe Pro Gly Arg Asp Val Thr Ser Thr Cys Ser
                85
Arg Val Ser Ala Thr Met Arg Val Arg Trp Arg Pro
                                105
            100
<210> 2319
<211> 1748
<212> DNA
<213> Homo sapiens
<400> 2319
ntgatcaagt ctcggtctct ggattatacc tttgttcctc gaacttggat ctttcctgct
60
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gaatatactc aa	ttccaaaa	ttatotoaaa	gaattgaaga	aaaaacggaa	gcagaaaact
120					
tttatagtga aa					
gacaaacttc ca	tctcagga	tcatttgatt	gttcaagaat	acattgaaaa	gcctttccta
atggaaggtt ac	aagtttga	cttacgaatt	tatattctgg	ttacatcgtg	tgatccacta
300 aaaatatttc to	ctaccatga	tgggcttgtg	cgaatgggta	cagagaagta	cattccacct
360 aatgagtcca at	ttgaccca	gttatacatg	catctgacaa	actactccgt	gaacaagcat
420 aatgagcatt tt	gaacggga	tgaaactgag	aacaaaggca	gcaaacgttc	catcaaatgg
480 tttacagaat to	ccttcaagc	aaatcaacat	gatgttgcta	agttttggag	tgatatttca
540 gaattggtgg ta	aagaccct	gattgtagca	gaacctcatg	tectgcatge	ctatcgaatg
600 tgtagacctg gt	tcaacctcc	aggaagcgaa	agtgtctgct	ttgaagtcct	gggatttgat
660 attttgttgg at					
720 ggaactgatc ag					
780 ctactaaaca ta					
840 caaaggaggc to					
900					
gaacagcaga ga 960					
gtacgaaagc ag					
atttatcctc c					
tttcagacct to	cctttcagg	aagagcagct	tcattccagc	gagagttgaa	taatcctttg
aaaaggatga a	ggaagaaga	tattttggat	cttctggagc	aatgtgaaat	tgatgatgaa
1200 aagttgatgg g	aaaaactac	caagactcga	ggaccaaagc	ctctgtgttc	tatgcctgag
1260 agtactgaga t	aatgaaaag	accaaagtac	tgcagcagtg	acagcagtta	tgatagtagc
1320 agcagctctt c	agaatctga	cgaaaatgaa	aaagaagagt	accaaaataa	gaaaagagaa
1380 aagcaagtta c					
1440 tccataagac g					
1500					
gacacccgcc c					
cggtcacatt c					
atgeetgete t	accaactct	caagtgagtg	agtctttgcg	gcaactgaaa	acaaaagaac

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aagaagatga totaacaagt cagacottat ttgttotcaa agacatgaag atcoggttto
caggaaag
1748
<210> 2320
<211> 532
<212> PRT
<213> Homo sapiens
<400> 2320
Xaa Ile Lys Ser Arg Ser Leu Asp Tyr Thr Phe Val Pro Arg Thr Trp
Ile Phe Pro Ala Glu Tyr Thr Gln Phe Gln Asn Tyr Val Lys Glu Leu
Lys Lys Lys Arg Lys Gln Lys Thr Phe Ile Val Lys Pro Ala Asn Gly
                            40
Ala Met Gly His Gly Ile Ser Leu Ile Arg Asn Gly Asp Lys Leu Pro
Ser Gln Asp His Leu Ile Val Gln Glu Tyr Ile Glu Lys Pro Phe Leu
                    70
                                        75
Met Glu Gly Tyr Lys Phe Asp Leu Arg Ile Tyr Ile Leu Val Thr Ser
                85
Cys Asp Pro Leu Lys Ile Phe Leu Tyr His Asp Gly Leu Val Arg Met
                                105
            100
Gly Thr Glu Lys Tyr Ile Pro Pro Asn Glu Ser Asn Leu Thr Gln Leu
                           120
Tyr Met His Leu Thr Asn Tyr Ser Val Asn Lys His Asn Glu His Phe
                       135
                                           140
Glu Arg Asp Glu Thr Glu Asn Lys Gly Ser Lys Arg Ser Ile Lys Trp
                    150
                                        155
Phe Thr Glu Phe Leu Gln Ala Asn Gln His Asp Val Ala Lys Phe Trp
                165
                                    170
Ser Asp Ile Ser Glu Leu Val Val Lys Thr Leu Ile Val Ala Glu Pro
                                185
His Val Leu His Ala Tyr Arg Met Cys Arg Pro Gly Gln Pro Pro Gly
                            200
Ser Glu Ser Val Cys Phe Glu Val Leu Gly Phe Asp Ile Leu Leu Asp
                       215
Arg Lys Leu Lys Pro Trp Leu Leu Glu Ile Asn Arg Ala Pro Ser Phe
                                        235
                   230
Gly Thr Asp Gln Lys Ile Asp Tyr Asp Val Lys Arg Gly Val Leu Leu
                                   250
Asn Ala Leu Lys Leu Leu Asn Ile Arg Thr Ser Asp Lys Arg Arg Asn
                               265
Leu Ala Lys Gln Lys Ala Glu Ala Gln Arg Arg Leu Tyr Gly Gln Asn
                           280
Ser Ile Lys Arg Leu Leu Pro Gly Ser Ser Asp Trp Glu Gln Gln Arg
                                           300
                       295
His Gln Leu Glu Arg Arg Lys Glu Glu Leu Lys Glu Arg Leu Ala Gln
                                       315
                   310
Val Arg Lys Gln Ile Ser Arg Glu Glu His Glu Asn Arg His Met Gly
                                   330
                325
Asn Tyr Arg Arg Ile Tyr Pro Pro Glu Asp Lỳs Ala Leu Leu Glu Lys
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345
           340
Tyr Glu Asn Leu Leu Ala Val Ala Phe Gln Thr Phe Leu Ser Gly Arg
                           360
Ala Ala Ser Phe Gln Arg Glu Leu Asn Asn Pro Leu Lys Arg Met Lys
                                           380
                       375
Glu Glu Asp Ile Leu Asp Leu Leu Glu Gln Cys Glu Ile Asp Asp Glu
                                       395
                   390
Lys Leu Met Gly Lys Thr Thr Lys Thr Arg Gly Pro Lys Pro Leu Cys
                                   410
                405
Ser Met Pro Glu Ser Thr Glu Ile Met Lys Arg Pro Lys Tyr Cys Ser
                                                    430
                                425
Ser Asp Ser Ser Tyr Asp Ser Ser Ser Ser Ser Glu Ser Asp Glu
                           440
Asn Glu Lys Glu Glu Tyr Gln Asn Lys Lys Arg Glu Lys Gln Val Thr
                       455
Tyr Asn Leu Lys Pro Ser Asn His Tyr Lys Leu Ile Gln Gln Pro Ser
                   470
                                       475
Ser Ile Arg Arg Ser Val Ser Cys Pro Arg Ser Ile Ser Ala Gln Ser
                                   490
               485
Pro Ser Ser Gly Asp Thr Arg Pro Phe Ser Ala Gln Gln Met Ile Ser
                               505
           500
Val Ser Arg Pro Thr Ser Ala Ser Arg Ser His Ser Leu Asn Pro Gly
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Leu Pro Pro Thr
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<210> 2321
<211> 433
<212> DNA
<213> Homo sapiens
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cgttctagaa atacagccac ataatttttt ttgttttgaa aaactgctca gcaaatgcat
120
acaggicata atggcaggia acagaccati tattgaagig cigaaacaaa tagaaaacaa
agtocaggac accatcacag agcagtactt cocttgtgag atactctcag ctaagtaaga
attgagtgag acaacaataa aacaaatacc cataggcttt tcaaacagta acaacccgct
300
cagggttagc agcatttcta gaccttgatg gtaaaatgat gttctcaacc tttgctttca
gacactggat cactgottaa gtagcottta tottttocco ctaatttttg ttgaagatgo
420
cagaggtgga gtg
433
<210> 2322
<211> 105
<212> PRT
<213> Homo sapiens
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Ile Cys Phe Ile Val Val Ser Leu Asn Ser Tyr Leu Ala Glu Ser Ile
Ser Gln Gly Lys Tyr Cys Ser Val Met Val Ser Trp Thr Leu Phe Ser
Ile Cys Phe Ser Thr Ser Ile Asn Gly Leu Leu Pro Ala Ile Met Thr
                        55
Cys Met His Leu Leu Ser Ser Phe Ser Lys Gln Lys Lys Leu Cys Gly
                    70
Cys Ile Ser Arg Thr Leu Asn His Phe Gln Asp Ser Ile Glu Leu Glu
                                    90
Thr His Ile Asp Thr Ser Thr Gln Leu
            100
<210> 2323
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<212> DNA
<213> Homo sapiens
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ccaggcagag ccagctcggc ggcccccgc acatagctgg ggttagcagg ggttgcttct
ctgccgggca cagcgntctc caggagccag ccggggagag ctgagccaag gccgaaggag
ccgcctgcgg gcttagccgc cccctcccgc ccgttggccc cagagcggac gctgggacgc
ceggggtetg geagetetge geceggetag gagegggegg gegageatta geetgegtee
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ctgtcagtga gcgcccggat tgcacggccc ccgggtagtg cctgccggcg aggggcggga
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532
<210> 2324
<211> 51
<212> PRT
<213> Homo sapiens
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Thr Arg Gln Asn Trp Gln Ser Trp Arg Leu Arg Gly Arg Gly Lys Trp
Thr Trp Arg Pro Ser Ser Thr Val His Pro Leu Gly Lys Lys Ala Glu
                                25
           20
Gly Ala Ser Ser Lys Ser Phe Leu Pro Gly Arg Ala Ser Ser Ala Ala
       35
                            40
Pro Arg Thr
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50 <210> 2325 <211> 459 <212> DNA <213> Homo sapiens <400> 2325 nnacgcgtgc aggaccgcat gagcgccatc tgggagagag gagtggttgg aggaaagatg gatgagaacc gttttgtggc cgttaccagt tccaacgcag ctaagcttct gaacctgtat ccccgcaagg gccgcattat tcccggagcc gatgctgatg tggtggtgtg ggacccagaa gccacaaaga ccatctcagc cagcacgcag gtccagggag gagacttcaa cctgtatgag 240 aacatgcgct gccacggcgt gccactggtc accatcagcc gggggcgcgt cgtgtatgag aacggcgtct tcatgtgcgc cgagggcacc ggcaagttct gtcccctgag gtccttccca gacactgtct acaagaagct ggtccagaga gagaagactt taaaggttag aggagtggcc cgcactccct acctggggga tgtcgctgtt gtcgtgcac 459 <210> 2326 <211> 153 <212> PRT <213> Homo sapiens <400> 2326 Xaa Arg Val Gln Asp Arg Met Ser Ala Ile Trp Glu Arg Gly Val Val 10 Gly Gly Lys Met Asp Glu Asn Arg Phe Val Ala Val Thr Ser Ser Asn 25 Ala Ala Lys Leu Leu Asn Leu Tyr Pro Arg Lys Gly Arg Ile Ile Pro 40 Gly Ala Asp Ala Asp Val Val Val Trp Asp Pro Glu Ala Thr Lys Thr 55 Ile Ser Ala Ser Thr Gln Val Gln Gly Gly Asp Phe Asn Leu Tyr Glu 75 70 Asn Met Arg Cys His Gly Val Pro Leu Val Thr Ile Ser Arg Gly Arg 90 85 Val Val Tyr Glu Asn Gly Val Phe Met Cys Ala Glu Gly Thr Gly Lys 105 100 Phe Cys Pro Leu Arg Ser Phe Pro Asp Thr Val Tyr Lys Lys Leu Val 125 120 Gln Arg Glu Lys Thr Leu Lys Val Arg Gly Val Ala Arg Thr Pro Tyr 140 135 Leu Gly Asp Val Ala Val Val His 150 145 <210> 2327

1700

<211> 599

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<212> DNA
<213> Homo sapiens
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120
tcagagatcc gagcagctga gaagaaattt gggagcaaca aggccgagat ggtggtgcct
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ctggtggcgt tcgaggcctc gctggtgcag cagcagatgc ggaacatgtc ggagatccgg
aagatgggca acaagcccca catgatccag gtctaccgaa gccgcaagtg gaggcccatt
gccagtgatg agatcgtacc aggggacatc gtctccatcg gtgaggccgg gttccgctca
gteccagtgg gagecccage etcagggeet etggecaace etcetgeete tgecetgeag
geogetecce acaggagaac etggtgecat gtgacgtget tetgetgega ggeogetge
599
<210> 2328
<211> 199
<212> PRT
<213> Homo sapiens
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Glu Phe Gln Lys Ile Lys Tyr Ser Tyr Asp Ala Leu Glu Lys Lys Gln
1
Phe Leu Pro Val Ala Phe Pro Val Gly Asn Ala Phe Ser Tyr Tyr Gln
Ser Asn Arg Gly Phe Gln Glu Asp Ser Glu Ile Arg Ala Ala Glu Lys
                            40
Lys Phe Gly Ser Asn Lys Ala Glu Met Val Val Pro Asp Phe Ser Glu
                        55
Leu Phe Lys Glu Arg Ala Thr Ala Pro Phe Phe Val Phe Gln Val Phe
Cys Val Gly Leu Trp Cys Leu Asp Glu Tyr Trp Tyr Tyr Ser Val Phe
                                    90
Thr Leu Ser Met Leu Val Ala Phe Glu Ala Ser Leu Val Gln Gln
                                105
Met Arg Asn Met Ser Glu Ile Arg Lys Met Gly Asn Lys Pro His Met
                            120
        115
Ile Gln Val Tyr Arg Ser Arg Lys Trp Arg Pro Ile Ala Ser Asp Glu
                        135
Ile Val Pro Gly Asp Ile Val Ser Ile Gly Glu Ala Gly Phe Arg Ser
                                        155
Val Pro Val Gly Ala Pro Ala Ser Gly Pro Leu Ala Asn Pro Pro Ala
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                165
Ser Ala Leu Gln Ala Ala Pro His Arg Arg Thr Trp Cys His Val Thr
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Cys Phe Cys Cys Glu Ala Ala
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agtgcctccc gggttgctca tcatcatgcg acgagatttc gcctggcggt gcaggccttc
attgtcgtcg tcattggtgg tttgttgtgg gcgttgacgg ccgacgcctt ccagttatcg
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Phe Arg Leu Ala Val Gln Ala Phe Ile Val Val Val Ile Gly Gly Leu
Leu Trp Ala Leu Thr Ala Asp Ala Phe Gln Leu Ser Thr Val Met Trp
Met Leu Gly Ala Trp Val Val Leu Phe Leu Val Leu Phe Val Ile Gln
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120
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gggattcagt 300	ttcccctgga	cccaaacaca	tcccgcgata	tcagcattgt	gttcactcca
gactttacct 360	cctcctgggt	aattcgggac	ctaagtcttg	taaccgcagc	ggacctagaa
tttcgcttca 420	ctctcaatgt	gactctccct	catcacctgt	tgcccttgtg	tgcagacgtg
480				cggtcttctt	
540				agtacattct	
600				agcaaaacaa	
660				actttctcga	
720				acactcccca	
780				ctcagaagaa	
840				ccagcagcac	
900				ctgctgctaa	
960				atgcaagtgg	
1020				ataaagaaga	
1080				gtatgaagga	
1140				agaacacagc	
1200 .	•			ctgaaaacca	
1260				ccaggaaaaa	
1320				aaaatttgaa	
1380				gagaagacat	
1440				ggaagaaaaa	
1500				gtcgaacatg	
1560				agagtgatct	
1620				atgtaagaag	
1680				ttgcaagcag	
gcccagagag 1740	aggcaggtta	ctaccagaag	cctgagaaga	aatgtgtgga	caagttctgc

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tecgatteca getetgactg tgggagetec tetggeageg tgegtgecag eeggggeage
1800
tgggggaget ggageageae cageagetee gaeggggata agaageeeat ggtggaegee
1860
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atctccttga atctttctca taacatctgc aatcccatga ccgtgaatag tctcccacaa
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ggtetttaet cacetggaga eetgtggeee aeteegeeag tgtgtgtgae aageagetta
2100
aactgcaccc tggagaacgg cgtgccttgt gtgattcagg agtcggcccc ggttcataat
agtttcattg attggagtgc aacatgcgaa ggccagtttt ccagcgcata ctgtccattg
gaattgaacg attacaatgc ctttccagaa gaaaacatga actatgccaa tggcttcccc
tqtcctqcag atgttcagac agactttatt gatcacaact ctcagtctac ctggaacacc
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2460
agegatgtgt atgaaaattg ctgccccatc aaccccacca cggaacattc gacccacatg
2520
gaaaaccaag cggtcgtgtg caaggaatac tacccggggt tcaacccgtt tcgcgcctat
2580
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2640
gactcgagtt actgtgggaa tgtgtgaaaa taattggatt tttaaacaat gtgaataaag
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Ala Ala Asp Leu Glu Phe Arg Phe Thr Leu Asn Val Thr Leu Pro His
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His Leu Leu Pro Leu Cys Ala Asp Val Val Pro Gly Pro Ser Trp Glu
                           40
Glu Ser Phe Trp Arg Leu Thr Val Phe Phe Val Ser Leu Ser Leu Leu
                                          60
Gly Val Ile Leu Ile Ala Phe Gln Gln Ala Gln Tyr Ile Leu Met Glu
                   70
                                       75
Phe Met Lys Thr Arg Gln Arg Gln Asn Ala Ser Ser Ser Gln Gln
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				85					90					95	
Asn	Δen	Glv	Pro		Asn	Val	Tle	Ser		His	Ser	TVY	Lvs		Asn
AUII	A311	Gry	100		nop	Val	116	105			-	- 7 -	110		
Cvs	Lvs	Asn			Asp	Thr	Tvr			Ser	Asp	Lvs			Gly
-70	-,-	115					120					125			1
Lvs	Asn		Leu	Pro	Val	Asn		Pro	Gln	Ser	Arg	_		Asn	Ala
-1-	130	-,0				135					140				
Ala		Ara	Ser	Pro	Ala		Tvr	Glv	His	Ser	Gln	Lvs	Lvs	His	Lys
145	-1-	5			150		-1-	1		155		•	- 4		160
	Ser	Val	Tvr	Tvr	Ser	Lvs	His	Lvs	Thr			Ala	Ala	Ala	
•	-		•	165		•		•	170					175	
Ser	Thr	Ser	Thr	Thr	Thr	Glu	Glu	Lvs	Gln	Thr	Ser	Pro	Leu	Gly	Ser
			180					185		•			190	_	
Ser	Leu	Pro	Ala	Ala	Lys	Glu	Asp	Ile	Cys	Thr	Asp	Ala	Met	Arg	Glu
		195			-		200		_		_	205			
Asn	Trp	Ile	Ser	Leu	Arg	Tyr	Ala	Ser	Gly	Ile	Asn	Val	Asn	Leu	Gln
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Lys	Asn	Leu	Thr	Leu	Pro	Lys	Asn	Leu	Leu	Asn	Lys	Glu	Glu	Asn	Thr
225					230					235					240
Leu	Lys	Asn	Thr	Ile	.Val	Phe	Ser	Asn	Pro	Ser	Ser	Glu	Cys	Ser	Met
				245					250					255	
Lys	Glu	Gly	Ile	Gln	Thr	Cys	Met	Phe	Pro	Lys	Glu	Thr	Asp	Ile	Lys
			260					265					270		
Thr	Ser		Asn	Thr	Ala	Glu		Lys	Glu	Arg	Glu		Cys	Pro	Leu
		275					280					285	_	_	
Lys		Ser	Lys	Lys	Leu		Glu	Asn	His	Leu		Arg	Asn	Ser	Pro
	290	•		_	_	295	_		_,	_	300	•			~3
	Tyr	His	GIn	Pro	Asp	Leu	Pro	GIu	ITE		Arg	Lys	ASN	Asn	
305	3	~1	01 -	17 1	310	11- 1	T	7	~1	315	N	w: -	C	C1	320
ASI	ASI	GIN	GIN	325	Pro	val	Lys	ASI	330	vai	ASP	urs	Çys	335	ASII
T 011	Tuc	Tve	17= 1		Thr	Tvc	Bro	Car		Glu	Lare	Lare	Tla		LVE
теп	nys	БАЗ	340	vsħ	1111	цуз	FIU	345	361	GIU	шуз	шуз	350	1113	Lys
Thr	Ser	Δτα		Asn	Met	Phe	Ser		Lvs	Gln	Asp	Ile		Phe	Val
		355					360		-1-			365			
Glu	Gln		Asp	Pro	Tyr	Arq		Lys	Lys	Leu	Gln		Lys	Arg	Glu
	370				- 2 -	375	-2-				380		-	_	
Gly		Leu	Gln	Asn	Leu	Asn	Trp	Ser	Lys	Ser	Arg	Thr	Cys	Arg	Lys
385					390		-		-	395					400
Asn	Lys	Lys	Arg	Gly	Val	Ala	Pro	Val	Ser	Arg	Pro	Pro	Glu	Gln	Ser
	_			405					410					415	
Asp	Leu	Lys	Leu	Val	Cys	Ser	Asp	Phe	Glu	Arg	Ser	Glu	Leu	Ser	Ser
			420					425					430		
Asp	Ile	Asn	Val	Arg	Ser	Trp	Cys	Ile	Gln	Glu	Ser	Thr	Arg	Glu	Val
		435					440					445			
Cys	Lys	Ala	Asp	Ala	Glu	Ile	Ala	Ser	Ser	Leu	Pro	Ala	Ala	Gln	Arg
	450					455					460				
Glu	Ala	Gly	Tyr	Tyr	Gln	Lys	Pro	Glu	Lys		Cys	Val	Asp	Lys	
465					470					475			_		480
Cys	Ser	Asp	Ser		Ser	Asp	Cys	Gly		Ser	Ser	Gly	Ser		Arg
				485	_		_	_	490		m.	0 -	C	495	•
Ala	Ser	Arg		Ser	Trp	Gly	Ser		ser	ser	Thr	ser		ser	Asp
	_	_	500	_				505	C1-	ਹ ੋਂ ~	Dha	T 64-	510	רת	~ 1
GIY	Asp	Lys	гÀè	Pro	Met	val	Asp	ALA	GTU	uTZ	FIIE	neu	210	wrg	ату

520

Asp Ser Val Ser Gln Asn Asp Phe Pro Ser Glu Ala Pro Ile Ser Leu

515

```
535
Asn Leu Ser His Asn Ile Cys Asn Pro Met Thr Val Asn Ser Leu Pro
                                        555
Gln Tyr Ala Glu Pro Ser Cys Pro Ser Leu Pro Ala Gly Pro Thr Gly
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Val Glu Glu Asp Lys Gly Leu Tyr Ser Pro Gly Asp Leu Trp Pro Thr
                               585
Pro Pro Val Cys Val Thr Ser Ser Leu Asn Cys Thr Leu Glu Asn Gly
                           600
Val Pro Cys Val Ile Gln Glu Ser Ala Pro Val His Asn Ser Phe Ile
                        615
                                           620
Asp Trp Ser Ala Thr Cys Glu Gly Gln Phe Ser Ser Ala Tyr Cys Pro
                                       635
                   630
Leu Glu Leu Asn Asp Tyr Asn Ala Phe Pro Glu Glu Asn Met Asn Tyr
                                   650
Ala Asn Gly Phe Pro Cys Pro Ala Asp Val Gln Thr Asp Phe Ile Asp
                               665
           660
His Asn Ser Gln Ser Thr Trp Asn Thr Pro Pro Asn Met Pro Ala Ala
                                               685
                           680
Trp Gly His Ala Ser Phe Ile Ser Ser Pro Pro Tyr Leu Thr Ser Thr
                                            700
                       695
Arg Ser Leu Ser Pro Met Ser Gly Leu Phe Gly Ser Ile Trp Ala Pro
                   710
                                        715
Gln Ser Asp Val Tyr Glu Asn Cys Cys Pro Ile Asn Pro Thr Thr Glu
                                   730
                725
His Ser Thr His Met Glu Asn Gln Ala Val Val Cys Lys Glu Tyr Tyr
                                745
            740
Pro Gly Phe Asn Pro Phe Arg Ala Tyr Met Asn Leu Asp Ile Trp Thr
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Thr Thr Ala Asn Arg Asn Ala Asn Phe Pro Leu Ser Arg Asp Ser Ser
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Tyr Cys Gly Asn Val
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gacgaagttc ttcacaaagc aaaatcatat ttgtcagcag atgaatatga gtatgtttta
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tacattatgc atcctataca agttgcaggt attttaacag aaatgcgatt agacggaccg
acgattgtcg caggtttttt gcatgatgta attgaagata caccgtatac atttgaagat
360
```

```
gtaaaagaaa tgttcaatga agaagttgct cgaattgttg atggtgtgac gaagcttaaa
aaaataaaat accgctcaaa agaagaacaa caagctgaaa atcatcgcaa gttatttatt
gcgattgcca aagatgtacg c
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Glu Tyr Val Leu Lys Ser Tyr His Ile Ala Tyr Glu Ala His Lys Gly
Gln Phe Arg Lys Asn Gly Leu Pro Tyr Ile Met His Pro Ile Gln Val
                        55
Ala Gly Ile Leu Thr Glu Met Arg Leu Asp Gly Pro Thr Ile Val Ala
                                        75
                    70
Gly Phe Leu His Asp Val Ile Glu Asp Thr Pro Tyr Thr Phe Glu Asp
                                    90
                85
Val Lys Glu Met Phe Asn Glu Glu Val Ala Arg Ile Val Asp Gly Val
                                105
                                                     110
Thr Lys Leu Lys Lys Ile Lys Tyr Arg Ser Lys Glu Glu Gln Gln Ala
                            120
Glu Asn His Arg Lys Leu Phe Ile Ala Ile Ala Lys Asp Val Arg
                        135
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<212> DNA
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cccatgggcc gtgtggaatt taatcaggca agagttcaga cccatttcat ccacacactc
accegeetge agttggaaca ggaggetgag agetttaggg agetggagge ecetgeecag
ggcagcccac ccagccctgg tgaggaggcc ctggtcccta ctttcccact ggccaagccc
cccatgaaca atgagctggg agacaacagc tgcagcagcg acatgactga ttcttccaca
gcatcttcat cagcatcggg cactagt
387
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Asn Pro Met Gly Arg Val Glu Phe Asn Gln Ala Arg Val Gln Thr His
            20
Phe Ile His Thr Leu Thr Arg Leu Gln Leu Glu Gln Glu Ala Glu Ser
                            40
Phe Arg Glu Leu Glu Ala Pro Ala Gln Gly Ser Pro Pro Ser Pro Gly
Glu Glu Ala Leu Val Pro Thr Phe Pro Leu Ala Lys Pro Pro Met Asn
                    70
Asn Glu Leu Gly Asp Asn Ser Cys Ser Ser Asp Met Thr Asp Ser Ser
                                    90
Thr Ala Ser Ser Ser Ala Ser Gly Thr Ser
            100
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<211> 359
<212> DNA
<213> Homo sapiens
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ttetetgeac cagetteeet getgggetee agggeecaca ggetgaggee gggggeecag
gggtcaatgc caggcaccct gctattgagg aacctatcca ggaggaagga ctcgggcaga
240
cctgcgggat cctcgtcctc ccacgggtcc tcatggcaga agcagaagga gctggagtcg
ctgaggtccg tgggcaggcg ggctgggccc aacgtggggt caccgacctc ctcaaagct
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<211> 98
<212> PRT
<213> Homo sapiens
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Lys Gly Ser Phe Ser Ala Pro Ala Ser Leu Leu Gly Ser Arg Ala His
                                25
            20
Arg Leu Arg Pro Gly Ala Gln Gly Ser Met Pro Gly Thr Leu Leu Leu
                            40
Arg Asn Leu Ser Arg Arg Lys Asp Ser Gly Arg Pro Ala Gly Ser Ser
                                            60
                        55
Ser Ser His Gly Ser Ser Trp Gln Lys Gln Lys Glu Leu Glu Ser Leu
```

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65
Arg Ser Val Gly Arg Arg Ala Gly Pro Asn Val Gly Ser Pro Thr Ser
Ser Lys
<210> 2339
<211> 439
<212> DNA
<213> Homo sapiens
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actggtcccg gtagggcttg taatgctggg gcgctcggcg cgatgtgcca gttccttggt
gagttactcc tctacactgg tgtgaacaag accggagaat tcccccccat attctcgttt
eccgetegte ecgeaegtea ttgggaetgg ettttaegeg gtagtggttg ecgtaetetg
gttgctctgc ggcacggtcg gcagggggat catgtcatga gtccgacggt gagcgagcgg
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ttgtcggggt gcggtgctg
439
<210> 2340
<211> 92
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<213> Homo sapiens
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Thr Gly Glu Phe Pro Pro Ile Phe Ser Phe Pro Ala Arg Pro Ala Arg
                                25
His Trp Asp Trp Leu Leu Arg Gly Ser Gly Cys Arg Thr Leu Val Ala
                            40
Leu Arg His Gly Arg Gln Gly Asp His Val Met Ser Pro Thr Val Ser
Glu Arg Arg Leu Ser Ala Pro Met Arg Arg Gly Ile Val Ala Leu Cys
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Val Ala Met Ala Phe Val Leu Ser Gly Cys Gly Ala
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<210> 2341
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<212> DNA
<213> Homo sapiens
<400> 2341
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120
ggagaaggaa gcagaggagg aggaggaaga ggaagagctg ctcctgtgag cgggtcccca
180
ggagecaceg cacaggecea tgeceettea eetageacea geageageac cageagecag
agteetgggg ccacceggca caggcaggag gattetggag accaggecac atcaggenat
ggaagtggag agcagtgtga aacccacctt gtcagtgccc tcagtcaccc caagtacagt
ggccccgggg gttcagaact atagccagga gtctgggggc actgagtggc n.
411
<210> 2342
<211> 113
<212> PRT
<213> Homo sapiens
<400> 2342
Ala Ser Leu Ala Tyr Ala Ser Ala Gly Gly Ala Arg Gly Gly His Gly
Gly Gly Gly Lys Gly Arg Arg Gly Glu Gly Glu Gly Ser Arg Gly
                                25
Gly Gly Gly Arg Gly Arg Ala Ala Pro Val Ser Gly Ser Pro Gly Ala
                            40
Thr Ala Gln Ala His Ala Pro Ser Pro Ser Thr Ser Ser Ser Thr Ser
                        55
Ser Gln Ser Pro Gly Ala Thr Arg His Arg Gln Glu Asp Ser Gly Asp
                    70
Gln Ala Thr Ser Gly Xaa Gly Ser Gly Glu Gln Cys Glu Thr His Leu
                                    90
Val Ser Ala Leu Ser His Pro Lys Tyr Ser Gly Pro Gly Gly Ser Glu
                                                    110
            100
                                105
Leu
<210> 2343
<211> 522
<212> DNA
<213> Homo sapiens
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ggaggccagg gaccctacca agccatgtcc caggacatgg gcaataccca agacatgttc
agecetgate agageteaat geceatgage aaegtgggea ecaceegget cagecacatg
cctctgcccc ctgcgtccaa tcctcctggg accgtgcatt cagccccaaa ccgggggcta
ggcaggcggc cttcggacct caccatcagt attaatcaga tgggctcacc gggcatgggg
300
```

```
cacttgaagt cgcccaccet tagccaggtg cactcacccc tggtcacctc gccctctgcc
aaceteaagt caececagae teeeteacag atggtgeeet tgeettetge caaceegeea
ggacetetea agtegeecea ggteetegge tectecetea gtgteegtte acceaetgge
tegeccagea ggeteaagte teetteeatg geggtgeett et
522
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Gly Pro Gln Lys Met Leu Met Pro Ser Gln Phe Pro Asn Gln Gly Gln
                                    10
Gln Gly Phe Ser Gly Gly Gln Gly Pro Tyr Gln Ala Met Ser Gln Asp
                                25
            20
Met Gly Asn Thr Gln Asp Met Phe Ser Pro Asp Gln Ser Ser Met Pro
Met Ser Asn Val Gly Thr Thr Arg Leu Ser His Met Pro Leu Pro Pro
Ala Ser Asn Pro Pro Gly Thr Val His Ser Ala Pro Asn Arg Gly Leu
                    70 .
Gly Arg Arg Pro Ser Asp Leu Thr Ile Ser Ile Asn Gln Met Gly Ser
                                    90
                85
Pro Gly Met Gly His Leu Lys Ser Pro Thr Leu Ser Gln Val His Ser
                                105
            100
Pro Leu Val Thr Ser Pro Ser Ala Asn Leu Lys Ser Pro Gln Thr Pro
                                                 125
                            120
Ser Gln Met Val Pro Leu Pro Ser Ala Asn Pro Pro Gly Pro Leu Lys
                        135
                                            140
Ser Pro Gln Val Leu Gly Ser Ser Leu Ser Val Arg Ser Pro Thr Gly
                                        155
                    150
Ser Pro Ser Arg Leu Lys Ser Pro Ser Met Ala Val Pro Ser
                                    170
                165
<210> 2345
<211> 561
<212> DNA
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gg.cctccacc agcccgcgtc caggccgcct gggctcgacg cgctggacag gcgccggcgg
120
ctggcgctgc cgcccttttg ccgtttccgc cttttcttgc gcttctggtg cttgctggag
180
geetgegege eegeetegee tgegetgtee gagteettgg egetgtegga egtgagtgae
togoagttot goagoogoag gtoogactog ototocacca tagotattaa tgooaagaat
300
```

```
gcaaatgaaa agaatatcat ctgggtgaat taccttctta gcaatcctga gtacaaggac
acacccatgg acatcgcaca gctcccccat ctgccggaga aaacttccga atcctcggag
acatecquet etquateuque etetaaague aceteaggta ttaeagagga caaegagaae
tccaagnntc cgacgagaag gggaaccagt ccgagaacag cgaagacccg gagcccgacc
540
ggaagaagtc gggcaacgcg t
561
<210> 2346
<211> 187
<212> PRT
<213> Homo sapiens
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Ser Ser Arg Gly Gly Leu His Gln Pro Ala Ser Arg Pro Pro Gly Leu
                                25
Asp Ala Leu Asp Arg Arg Arg Leu Ala Leu Pro Pro Phe Cys Arg
                            40
Phe Arg Leu Phe Leu Arg Phe Trp Cys Leu Leu Glu Ala Cys Ala Pro
                        55
                                            60
Ala Ser Pro Ala Leu Ser Glu Ser Leu Ala Leu Ser Asp Val Ser Asp
                    70
Ser Gln Phe Cys Ser Arg Arg Ser Asp Ser Leu Ser Thr Ile Ala Ile
                                    90
Asn Ala Lys Asn Ala Asn Glu Lys Asn Ile Ile Trp Val Asn Tyr Leu
                                105
Leu Ser Asn Pro Glu Tyr Lys Asp Thr Pro Met Asp Ile Ala Gln Leu
                            120
Pro His Leu Pro Glu Lys Thr Ser Glu Ser Ser Glu Thr Ser Asp Ser
                        135
Glu Ser Asp Ser Lys Asp Thr Ser Gly Ile Thr Glu Asp Asn Glu Asn
                    150
                                        155
Ser Lys Xaa Pro Thr Arg Arg Gly Thr Ser Pro Arg Thr Ala Lys Thr
                                    170
Arg Ser Pro Thr Gly Arg Ser Arg Ala Thr Arg
                                185
<210> 2347
<211> 375
<212> DNA
<213> Homo sapiens
<400> 2347
atcagcgaag aacacggcag gaccctggaa gacgccgccg gtgaattgaa gcgtggtatc
qaqaacqtcq agtacgcctq cgccqcgccg gaagtactga agggtgaata cagccgtaac
gteggteega acategaege etggteegat tteeageege tgggegtggt ggeggggate
180
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acgccattca acttcccggc gatggtgccc ctgtggatgt atccgttggc gatcgtttgc
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Phe Pro Ala Met Val Pro Leu Trp Met Tyr Pro Leu Ala Ile Val Cys
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Gly Asn Cys Phe Ile Leu Lys Pro Ser Glu Arg Asp Pro Ser Ser Thr
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Arg Ile Asn Gly Ile Gly Ala Met Val Thr Thr Phe Gly Val Gly Glu
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Cys Lys Met Leu Thr Asp Asp Met Thr Glu Val Phe Ile Val Thr Gly
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His Thr Val Leu Glu Val Arg Glu Glu Xaa Gln Glu Ser Pro Gly Glu
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875

855

870

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850

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<400> 2361

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teeggatggg actecaacet acttgggggt actgggggtg cagaaagaac geggeeetgt
gtcagggacc ggtatggaag cctcagtagg gctggagccc catcatgccc cttccgagca
120
gatcaacaca gaccagetgg tcaaggggga cetecatece tgecetgtee tcaeggaget
180
gtagggagag teccaaagge aggtggtggg getggggeet ecaacagetg ggteetetea
tateaettaa ggeecaacag cacacagtet cecaagtgtg ceaggtgeea caacaeggee
atecegetet cacageteca eccegeetge etgeetgeca ceatetecae aaacatatge
tgcagctcca cacccgggaa acaccacatg ctcgcttt
398
<210> 2362
<211> 98
<212> PRT
<213> Homo sapiens
<400> 2362
Met Pro Leu Pro Ser Arg Ser Thr Gln Thr Ser Trp Ser Arg Gly Thr
Ser Ile Pro Ala Leu Ser Ser Arg Ser Cys Arg Glu Ser Pro Lys Gly
                                 25
            20
Arg Trp Trp Gly Trp Gly Leu Gln Gln Leu Gly Pro Leu Ile Ser Leu
                             40
Lys Ala Gln Gln His Thr Val Ser Gln Val Cys Gln Val Pro Gln His
                        55
    50
Gly His Pro Ala Leu Thr Ala Pro Pro Arg Leu Pro Ala Cys His His
                                         75
                     70
Leu His Lys His Met Leu Gln Leu His Thr Arg Glu Thr Pro His Ala
                                     90
                 85
Arg Phe
<210> 2363
<211> 833
<212> DNA
<213> Homo sapiens
<400> 2363
nngactcctc tagctcccaa cgcaaaagcg tttaaagatg cagctcagaa gcatcaccag
cagcacaagg ggaggtccca agaaccagaa cttacatcac tgcctccgag ttcagaggtt
tecttteeca ectteteaga actttetgtt tecatggeet ectetgeeae etetgeeaee
teccetgatg tgctggcctc cgtttccatc gcttcctcat ggcgttcttc cgcccggtgt
tecaageeca etgeangteg aageaaacgt gattgegtta ecaeteagaa ggtggeacag
ggactggcag eggtgccate tgggagtetg tgtgctcage etcegagtge aggetteece
 360
```

```
ggcccctgct gtggtgctag gtccccagat gagagatcac ggtcatgaag atcagccccc
420
aaggcagccc cttccnttcc agcctgggct ctggcgtgtt ctaggtgctc acttccatgg
ctggcctgct cacagagece tacctcagec tgtggtaage gcacetgete ggccctggtg
540
ctctatgatg agccaccagt cagttctgca gatgtgtccc cgagctcctg ccgagggacg
aaacacggtg gecetgetee tagtgeetgt geacgeeacg etecacacet gecatetgee
cttccaccac etgetecece aggggetecg cetegtgaet caegeteagg caagteteeg
ggcgcgaaca gctggctgat ggtgacatgc tgcagcctgg tcacatcaga aaccatgagg
gtggatctcc ggaggtcatc gatgtggaca gactgccaca gcccttcacg cgt
<210> 2364
<211> 135
<212> PRT
<213> Homo sapiens
<400> 2364
Xaa Thr Pro Leu Ala Pro Asn Ala Lys Ala Phe Lys Asp Ala Ala Gln
                                                         15
Lys His His Gln Gln His Lys Gly Arg Ser Gln Glu Pro Glu Leu Thr
                                 25
Ser Leu Pro Pro Ser Ser Glu Val Ser Phe Pro Thr Phe Ser Glu Leu
Ser Val Ser Met Ala Ser Ser Ala Thr Ser Ala Thr Ser Pro Asp Val
                        55
Leu Ala Ser Val Ser Ile Ala Ser Ser Trp Arg Ser Ser Ala Arg Cys
                                                             80
                    70
                                         75
Ser Lys Pro Thr Ala Xaa Arg Ser Lys Arg Asp Cys Val Thr Thr Gln
                85
                                    90
Lys Val Ala Gln Gly Leu Ala Ala Val Pro Ser Gly Ser Leu Cys Ala
                                105
Gln Pro Pro Ser Ala Gly Phe Pro Gly Pro Cys Cys Gly Ala Arg Ser
Pro Asp Glu Arg Ser Arg Ser
    130
                        135
<210> 2365
<211> 429
<212> DNA
<213> Homo sapiens
<400> 2365
acceptacce ageteceacy getegtecay acetacytty agaaacttey acgagacayt
ctccgtcagt tcgcccaaca acctctgaac gaagtcaaga ttctccggca ctggagccaa
ggtgcttgcc ctggcatgaa cgccccaggg gaggtcgacg ccgtcgggat tctcacaccg
180
```

```
atggtgatgg gactcggttt ccaaccacgg ttccatgtga cccagacagt tctggttggc
cccgageteg atgectegte egegacacag accategage caceteatgt ceteegeegt
caeggggetg eggteggeec acaecteete etcaeegegg taggeaaate eegetteaee
atagagetea aggtgattga gaccaeaceg egecatgaeg egegteagga aateaagagt
420
ggaacgcgt
429
<210> 2366
<211> 132
<212> PRT
<213> Homo sapiens
<400> 2366
Met Ala Arg Cys Gly Leu Asn His Leu Glu Leu Tyr Gly Glu Ala Gly
Phe Ala Tyr Arg Gly Glu Glu Glu Val Trp Ala Asp Arg Ser Pro Val
                                 25
Thr Ala Glu Asp Met Arg Trp Leu Asp Gly Leu Cys Arg Gly Arg Gly
                             40
Ile Glu Leu Gly Ala Asn Gln Asn Cys Leu Gly His Met Glu Pro Trp
Leu Glu Thr Glu Ser His His His Arg Cys Glu Asn Pro Asp Gly Val
Asp Leu Pro Trp Gly Val His Ala Arg Ala Ser Thr Leu Ala Pro Val
                85
                                    90
Pro Glu Asn Leu Asp Phe Val Gln Arg Leu Leu Gly Glu Leu Thr Glu
            100
                                105
Thr Val Ser Ser Lys Phe Leu Asn Val Gly Leu Asp Glu Pro Trp Glu
                            120
                                                125
Leu Gly Thr Gly
    130
<210> 2367
<211> 474
<212> DNA
<213> Homo sapiens
<400> 2367
ngtgcacggg agaagacgtg cgcgcagttc ggcggaacct atccgggttc ggccggcagt
60
gggggtcacg agetcacega egegegegeg ttegectegt ggggegtega tttegtcaaa
tacgateggt geteeggtga eteegegeac gaegaceagg tegeetegtt eacegegatg
cgtgacgcaa tccgatccac cggacgcccc atggtgtaca gcatcaaccc caacagcgaa
240
tegeoggate ggteeggage ceaattegat tggggeggtg tggcaaccat gacaegtace
accaacgaca totogooggt gtggaccact cggccggccg gtgccgatgc gacaccggca
360
```

```
tcggggtatc aggggatccg cgacatcatc gacgccgtgg ccccgatcgg cgcacgggtt
gcgacggcag cttcgtcgac atggacatgc tcgtcgtcgg tgtcggcaac gcgt
474
<210> 2368
<211> 158
<212> PRT
<213> Homo sapiens
<400> 2368
Xaa Ala Arg Glu Lys Thr Cys Ala Gln Phe Gly Gly Thr Tyr Pro Gly
Ser Ala Gly Ser Gly Gly His Glu Leu Thr Asp Ala Arg Ala Phe Ala
                                                    30
                                25
Ser Trp Gly Val Asp Phe Val Lys Tyr Asp Arg Cys Ser Gly Asp Ser
                            40
Ala His Asp Asp Gln Val Ala Ser Phe Thr Ala Met Arg Asp Ala Ile
                                            60
Arg Ser Thr Gly Arg Pro Met Val Tyr Ser Ile Asn Pro Asn Ser Glu
Ser Pro Asp Arg Ser Gly Ala Gln Phe Asp Trp Gly Gly Val Ala Thr
                85
Met Thr Arg Thr Thr Asn Asp Ile Ser Pro Val Trp Thr Thr Arg Pro
            100
                                105
Ala Gly Ala Asp Ala Thr Pro Ala Ser Gly Tyr Gln Gly Ile Arg Asp
                                                125
                            120
Ile Ile Asp Ala Val Ala Pro Ile Gly Ala Arg Val Ala Thr Ala Ala
                        135
                                            140
Ser Ser Thr Trp Thr Cys Ser Ser Ser Val Ser Ala Thr Arg
                    150
<210> 2369
<211> 408
<212> DNA
<213> Homo sapiens
<400> 2369
ctgaatggca ggcaggcaga ggccaccaga gccagcccc cgagaagccc tgctgagcca
aaggggagcg ccctgggacc taacccagag ccccatctca ccttcccccg ttctttcaaa
gtgcctccc caaccccagt caggacttcg tccatcccag ttcaggaagc acaagaggct
cccgaaagga agagggggcc accaagaagg ctcccagccg actcccactg cctcccagct
tecacateeg eccegeetee caggtetace cagacaggge eccegagene agactgeeet
ggggagetea aggecacage accagecage ecaaggettg gecagteeca gteccaagea
gatgaacgag ctgggactcc gcctccagcc cctccctgc cccctcct
408
```

<210> 2370

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<211> 136
<212> PRT
<213> Homo sapiens
<400> 2370
Leu Asn Gly Arg Gln Ala Glu Ala Thr Arg Ala Ser Pro Pro Arg Ser
                                    10
Pro Ala Glu Pro Lys Gly Ser Ala Leu Gly Pro Asn Pro Glu Pro His
                                25
Leu Thr Phe Pro Arg Ser Phe Lys Val Pro Pro Pro Thr Pro Val Arg
                            40
Thr Ser Ser Ile Pro Val Gln Glu Ala Gln Glu Ala Pro Glu Arg Lys
                        55
Arg Gly Pro Pro Arg Arg Leu Pro Ala Asp Ser His Cys Leu Pro Ala
                                        75
                    70
Ser Thr Ser Ala Pro Pro Pro Arg Ser Thr Gln Thr Gly Pro Pro Ser
                                    90
                85
Xaa Asp Cys Pro Gly Glu Leu Lys Ala Thr Ala Pro Ala Ser Pro Arg
                                                    110
                                105
            100
Leu Gly Gln Ser Gln Ser Gln Ala Asp Glu Arg Ala Gly Thr Pro Pro
                            120
Pro Ala Pro Pro Leu Pro Pro
                        135
    130
<210> 2371
<211> 327
<212> DNA
<213> Homo sapiens
<400> 2371
gaattcggtg tgcgatgcga gcctgcagcc tgggagcaga gacaaggagc aaaggcggtg
agagggttgc cagggcaccc agttacagct ggagctgcag gggacccatc cctcgagaga
ggcaggcact agtcatgagg caagagatgc ctcagaagag gatgctggcc gcagggcaca
gcagagaggg agatagcccg gggcactcct caggaccggg cctcagggga cagcaaacaa
240
gattcctgat agacgcgccc aggtcatgcc ttttcagtgg tgtgagccag gttctggcgt
caggcgggcc aaggttttca tgcagcn
327
<210> 2372
<211> 104
<212> PRT
<213> Homo sapiens
<400> 2372
Met Arg Ala Cys Ser Leu Gly Ala Glu Thr Arg Ser Lys Gly Glu
Arg Val Ala Arg Ala Pro Ser Tyr Ser Trp Ser Cys Arg Gly Pro Ile
            20
                                25
Pro Arg Glu Arg Gln Ala Leu Val Met Arg Gln Glu Met Pro Gln Lys
```

```
40
Arg Met Leu Ala Ala Gly His Ser Arg Glu Gly Asp Ser Pro Gly His
Ser Ser Gly Pro Gly Leu Arg Gly Gln Gln Thr Arg Phe Leu Ile Asp
                                         75
Ala Pro Arg Ser Cys Leu Phé Ser Gly Val Ser Gln Val Leu Ala Ser
Gly Gly Pro Arg Phe Ser Cys Ser
            100
<210> 2373
<211> 591
<212> DNA
<213> Homo sapiens
<400> 2373
gaattctgac attcaggaag tcaattgcag aaggtttaac caagttgatt ctgttttacc
aaatcctgtc tattctgaaa agcggccaat gccagactca tctcatgatg tgaaagttct
120
cacttcaaag acatcagctg ttgagatgac ccaggcagta ttgaatactc agctttcatc
agaaaatgtt accaaagttg agcaaaattc accagcagtt tgtgaaacaa tttctgttcc
caaqtccatg tccactgagg aatataaatc aaaaattcaa aatgaaaata tgctacttct
cgctttgctt tcacaggcac gtaagactca gaagacagta ttaaaagatg ctaatcaaac
tattcaggat tctaaaccag acagttgtga aatgaatcca aatacccaaa tgactggtaa
ccaactgaat ttgaagaaca tggaaactcc aagtacttct aatgtaagtg gcagggtttt
qqacaactcc ttttgcagtg gacaagaatc ctcaacaaaa ggaatgcctg ctaaaaagtga
caqtaqctqt tccatggaag tgctagcaac ctgtctttcc ctgtggaaaa a
591
<210> 2374
<211> 167
<212> PRT
<213> Homo sapiens
<400> 2374
Met Pro Asp Ser Ser His Asp Val Lys Val Leu Thr Ser Lys Thr Ser
                                    10
Ala Val Glu Met Thr Gln Ala Val Leu Asn Thr Gln Leu Ser Ser Glu
Asn Val Thr Lys Val Glu Gln Asn Ser Pro Ala Val Cys Glu Thr Ile
Ser Val Pro Lys Ser Met Ser Thr Glu Glu Tyr Lys Ser Lys Ile Gln
                        55
Asn Glu Asn Met Leu Leu Leu Ala Leu Leu Ser Gln Ala Arg Lys Thr
Gln Lys Thr Val Leu Lys Asp Ala Asn Gln Thr Ile Gln Asp Ser Lys
```

```
90
Pro Asp Ser Cys Glu Met Asn Pro Asn Thr Gln Met Thr Gly Asn Gln
                                105
            100
Leu Asn Leu Lys Asn Met Glu Thr Pro Ser Thr Ser Asn Val Ser Gly
                            120
Arg Val Leu Asp Asn Ser Phe Cys Ser Gly Gln Glu Ser Ser Thr Lys
                                            140
                        135
    130
Gly Met Pro Ala Lys Ser Asp Ser Ser Cys Ser Met Glu Val Leu Ala
                    150
                                        155
145
Thr Cys Leu Ser Leu Trp Lys
                165
<210> 2375
<211> 535
<212> DNA
<213> Homo sapiens
<400> 2375
ntggccatgt cgttgctcag cagcggcacc ctggacagtt accttgagcg tcacaaacaa
ctggacgcga tgcgcatgct gcacttcttc gccctcgacg aagaaaaccc cgccagcatc
tataactgcc tgcgcgccgc gcggggcaat gcccacgcgg tacgcgggcg gatcaccgcc
gacatgtggg aaaacctcaa cgccacctgg ctggaaatgc gcagcatcgc cgccgggggc
ctggcccggc atggcatcag ccacttctgt gactgggtca agcagcgttc gcacctgttc
cgcggggcaa cctcgggcac catcatgcgc aacgacgctt accggtttat tcgcctgggc
acgtttgtcg agcgcgcgga caacaccctg cgcctgctgg atgcgcgcta cgaaatgttt
ggtgaggagt cggaagaggt cagcgacctg tcggcacgcg ggtattacca gtggagcgcc
ctgctgcggg ccttgtcgtc attcgaggcg tataccgaac tgtaccccaa cgcgt
535
<210> 2376
<211> 178
<212> PRT
<213> Homo sapiens
<400> 2376
Xaa Ala Met Ser Leu Leu Ser Ser Gly Thr Leu Asp Ser Tyr Leu Glu
                                    10
Arg His Lys Gln Leu Asp Ala Met Arg Met Leu His Phe Phe Ala Leu
                                25
Asp Glu Glu Asn Pro Ala Ser Ile Tyr Asn Cys Leu Arg Ala Ala Arg
                            40
Gly Asn Ala His Ala Val Arg Gly Arg Ile Thr Ala Asp Met Trp Glu
Asn Leu Asn Ala Thr Trp Leu Glu Met Arg Ser Ile Ala Ala Gly Gly
                    70
Leu Ala Arg His Gly Ile Ser His Phe Cys Asp Trp Val Lys Gln Arg
```

```
85
                                     90
Ser His Leu Phe Arg Gly Ala Thr Ser Gly Thr Ile Met Arg Asn Asp
Ala Tyr Arg Phe Ile Arg Leu Gly Thr Phe Val Glu Arg Ala Asp Asn
Thr Leu Arg Leu Leu Asp Ala Arg Tyr Glu Met Phe Gly Glu Glu Ser
                         135
                                             140
Glu Glu Val Ser Asp Leu Ser Ala Arg Gly Tyr Tyr Gln Trp Ser Ala
                    150
                                         155
Leu Leu Arg Ala Leu Ser Ser Phe Glu Ala Tyr Thr Glu Leu Tyr Pro
                                     170
                                                         175
Asn Ala
<210> 2377
<211> 622
<212> DNA
<213> Homo sapiens
<400> 2377
acgcgtgaag ggttgaggct tcagaagtgg tagggaagaa cagaagctcc cttctgaggg
agcacccagg agatgaaagg aaccaatcct gggtggtcct gcaccaggct tatcaacccc
tgacagacaa atggaaaact tctgtgatgg tgggacatga aaaaatattt cacccttctg
ataaaatgga accagcagat agaagtagga atttttctgt taggtgaaat gtttttaaaa
atatgtatac aggaaaaagc ataaaacagt attgactggc aaacatagaa ctggaatgta
aatataatgt tetttgeeet gaatgattta agtggeatga taaaaeteat gecacagaet
ggqtaaqaca aqqaatctaa tccactctaa aaagaagaaa agcatagtaa aattctcctt
420
agagttagaa ttattaatag ttcctatcta ctatttaatt taatcatagt taatgatgag
480
aatttottaa atttaaagot totgatgatg ctaaatgtgc atttotcatg attoottaaa
acaatttttq taaattctat tcctaggacc ttctgctttc agaaaaatta atgtcttgta
ttcttcgtat tggaggagat ct
622
<210> 2378
<211> 109
<212> PRT
<213> Homo sapiens
<400> 2378
Met Ser Phe Ile Met Pro Leu Lys Ser Phe Arg Ala Lys Asn Ile Ile
                                    10
Phe Thr Phe Gln Phe Tyr Val Cys Gln Ser Ile Leu Phe Tyr Ala Phe
                                25
Ser Cys Ile His Ile Phe Lys Asn Ile Ser Pro Asn Arg Lys Ile Pro
```

```
40
Thr Ser Ile Cys Trp Phe His Phe Ile Arg Arg Val Lys Tyr Phe Phe
Met Ser His His Arg Ser Phe Pro Phe Val Cys Gln Gly Leu Ile
                    70
Ser Leu Val Gln Asp His Pro Gly Leu Val Pro Phe Ile Ser Trp Val
                                    90
                85
Leu Pro Gln Lys Gly Ala Ser Val Leu Pro Tyr His Phe
                                105
<210> 2379
<211> 342
<212> DNA
<213> Homo sapiens
<400> 2379
tcatgacctg gagacttcgg aaactcaaca agactgcagg gcacccaggg gcaccagccc
cggtcaccgc agaggatcag tgcactttgc catctggcag atcaactcat ggcacaactg
ggaaacataa cattcacgct tgtgaaccga gacgccatac cccagcggtg ccgagagcaa
cagtgctgtg caggtctggg cagatgaggg cctccaggac acgaggactc actcgctcac
cetgeccaet gggcagetge tegecaetee ceteetggag ggcaggaegg acaccaeaca
cacacacaag cagggaagct gtgcagcagt ggggagaaag ca
<210> 2380
<211> 113
<212> PRT
<213> Homo sapiens
<400> 2380
Met Thr Trp Arg Leu Arg Lys Leu Asn Lys Thr Ala Gly His Pro Gly
                                    10
Ala Pro Ala Pro Val Thr Ala Glu Asp Gln Cys Thr Leu Pro Ser Gly
                                25
Arg Ser Thr His Gly Thr Thr Gly Lys His Asn Ile His Ala Cys Glu
                            40
Pro Arg Arg His Thr Pro Ala Val Pro Arg Ala Thr Val Leu Cys Arg
                        55
Ser Gly Gln Met Arg Ala Ser Arg Thr Arg Gly Leu Thr Arg Ser Pro
                                        75
Cys Pro Leu Gly Ser Cys Ser Pro Leu Pro Ser Trp Arg Ala Gly Arg
Thr Pro His Thr His Thr Ser Arg Glu Ala Val Gln Gln Trp Gly Glu
                                105
            100
Ser
<210> 2381
<211> 434
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```
<212> DNA
<213> Homo sapiens
<400> 2381
gtgcaccctg gccatatgga cgccagcgac gtcggcgtct tgcgtgacgt ggaaccgatc
ggcccaagta gagagatgga ttttgaatgg tgacgatgta cccgccgcag caagtggatg
ccgtcctctt tgacatggac ggaaccctgc tcaacaccct gccggcctgg tgcgtggcat
ctgagcatct gtggggcact tctctggctg acgctgacag cgccaaggtt gacgggggca
ccgtcgacga cgtcgttgag ctgtatctgc gagaccaccc tcaggcagat ccccaggcca
ccatcgagcg tttcatggac atccttgacg ccaacctggc tggccacacc gagccgatgc
ccggagetga ccgcctcgtg aagaggetgt caggtcatgt acccatcgct gtggtgtcga
420
atteccegae gegt
434
<210> 2382
<211> 116
<212> PRT
<213> Homo sapiens
<400> 2382
Met Val Thr Met Tyr Pro Pro Gln Gln Val Asp Ala Val Leu Phe Asp
                 5
Met Asp Gly Thr Leu Leu Asn Thr Leu Pro Ala Trp Cys Val Ala Ser
                                25
Glu His Leu Trp Gly Thr Ser Leu Ala Asp Ala Asp Ser Ala Lys Val
                                                 45
                            40
Asp Gly Gly Thr Val Asp Asp Val Val Glu Leu Tyr Leu Arg Asp His
Pro Gln Ala Asp Pro Gln Ala Thr Ile Glu Arg Phe Met Asp Ile Leu
                    70
Asp Ala Asn Leu Ala Gly His Thr Glu Pro Met Pro Gly Ala Asp Arg
                                    90
Leu Val Lys Arg Leu Ser Gly His Val Pro Ile Ala Val Val Ser Asn
                                105
                                                     110
            100
Ser Pro Thr Arg
       115
<210> 2383
<211> 393
<212> DNA
<213> Homo sapiens
<400> 2383
acgcgtgcgt tcagatgagc gccggacgaa actcctcggt cgcttcggca ggcatggatt
catgtcggca cgggcctttg aacaggatcg ccgtcgcgtg gctatccgcc gcgggtgggg
```

```
cagaaaacgc ccactctccc ttccccaggc gccggccgtc gagtcgtcta cgcaacgcac
gtctacatag gtgacttttt cataccccca ctttcgtact cggatgggct cggcgtgctc
gatgtcggca cgaaaaatta aatgcactga atgcgggttg tcgcacagga tgcatctcgt
300
ctttcttgat gccacccacc ttgttacata ttctgccatg caaaacacct tgtgattttt
ggcggagtgc aacatggtat gtgtatgcca ctg
393
<210> 2384
<211> 125
<212> PRT
<213> Homo sapiens
<400> 2384
Met Leu His Ser Ala Lys Asn His Lys Val Phe Cys Met Ala Glu Tyr
                                    10
Val Thr Arg Trp Val Ala Ser Arg Lys Thr Arg Cys Ile Leu Cys Asp
Asn Pro His Ser Val His Leu Ile Phe Arg Ala Asp Ile Glu His Ala
Glu Pro Ile Arg Val Arg Lys Trp Gly Tyr Glu Lys Val Thr Tyr Val
Asp Val Arg Cys Val Asp Asp Ser Thr Ala Gly Ala Trp Gly Arg Glu
                    70
Ser Gly Arg Phe Leu Pro His Pro Arg Arg Ile Ala Thr Arg Arg Arg
                                    90
Ser Cys Ser Lys Ala Arg Ala Asp Met Asn Pro Cys Leu Pro Lys Arg
                                105
Pro Arg Ser Phe Val Arg Arg Ser Ser Glu Arg Thr Arg
                                                125
                            120
        115
<210> 2385
<211> 347
<212> DNA
<213> Homo sapiens
<400> 2385
acgcgttccc aaagtaggat ggctgggata gagggaaagg acatctttca ggcttgttat
geactgtgct gtggactett gttgtggggt cetaggtetg eccageattt tggggtteae
cccgtgaccc tctacgggtt tccatgcccc cagcaccacg tccatcatca tttctggggt
cccctcacct cagagagect getteetatg actgegtggg ccagetggag aaggacgace
caagacccct caagtttctg tgtcctgacc ccaagcatag gcctgagtgc tcctggggcc
caagggeett tacgcactae tetetgggge ceaetgtetg cactett
347
```

<210> 2386

```
<211> 109
<212> PRT
<213> Homo sapiens
<400> 2386
Met Ala Gly Ile Glu Gly Lys Asp Ile Phe Gln Ala Cys Tyr Ala Leu
Cys Cys Gly Leu Leu Trp Gly Pro Arg Ser Ala Gln His Phe Gly
                                25
Val His Pro Val Thr Leu Tyr Gly Phe Pro Cys Pro Gln His His Val
His His His Phe Trp Gly Pro Leu Thr Ser Glu Ser Leu Leu Pro Met
Thr Ala Trp Ala Ser Trp Arg Arg Thr Thr Gln Asp Pro Ser Ser Phe
                    70
Cys Val Leu Thr Pro Ser Ile Gly Leu Ser Ala Pro Gly Ala Gln Gly
                                    90
Pro Leu Arg Thr Thr Leu Trp Gly Pro Leu Ser Ala Leu
            100
<210> 2387
<211> 715
<212> DNA
<213> Homo sapiens
<400> 2387
neggeegeac tteacettae ggaggggaga taatgagate aattagagge geegteaceg
cgccggagac agctgccgcc gcatagtaat cacccgcggg ctgggtgcgc gggggctccc
cgctacctgc gcgcctgctg ctcccaccac gcggcaccga cccgggcgcg cccccggccc
ctgtccgcag cccacagcca caccgcgcac cctacaccct ccttgcgcct ctgctgggga
geteacece tecactegea cagtgegetg eggecegggg tgtgggaggt ecegggaett
gggttgtgag tgcctgtgtg ggggtagggg caggtgtccg cttgtgcgca tatgggcatg
agtgtacatg gcgtgtgcct ggagatgggc gagtgcaggc tggaatgtgc cggcgtggca
cgtgtgtggg cccaaataga tgcgtgtgtg atcacatgtt gtgttcgtgt ttgcacctcg
tgtgcctgtg tgtccgtatt tgagtgctta caggaatgtg ggtggtgagt acccgtatgt
gggtgcatct gcacttgtgc gtgtgtgtgt gtaggcgcgt gtgtgtgcgt gtgtgtgtta
ngggatacgt gtagatgtgc attagtgtga ctgtgtgtgc tcatgtgcct gtgcacgtgt
gtttgaggtt tgtgtgcatg ggtagcgtct gtgagagcca tgtgtatatc tgcag
715
<210> 2388
<211> 58
<212> PRT
```

```
<213> Homo sapiens
<400> 2388
Met Gly Met Ser Val His Gly Val Cys Leu Glu Met Gly Glu Cys Arg
Leu Glu Cys Ala Gly Val Ala Arg Val Trp Ala Gln Ile Asp Ala Cys
                                25
Val Ile Thr Cys Cys Val Arg Val Cys Thr Ser Cys Ala Cys Val Ser
Val Phe Glu Cys Leu Gln Glu Cys Gly Trp
<210> 2389
<211> 336
<212> DNA
<213> Homo sapiens
<400> 2389
ntcaccetge egeeggaagg ttgetegtae egeatggeea tegteaceat gaagaagteg
tatccgggcc acgccaagcg cgtcatgttg ggtgtctggt cgtttttgcg acagttcatg
tataccaagt tegttategt cacegacgae gatateaacg ecegegactg gaacgaegtg
atctgggcca tcaccacgcg catggacccc aagcgcgaca cggtgatgat cgataacacg
ccgatcgact acctcgactt cgcctcgccg gtgtccggcc tgggttcgaa gatggggctc
gateceaege acaaatggee eggeeaeaee accegn
336
<210> 2390
<211> 112
<212> PRT
<213> Homo sapiens
<400> 2390
Xaa Thr Leu Pro Pro Glu Gly Cys Ser Tyr Arg Met Ala Ile Val Thr
Met Lys Lys Ser Tyr Pro Gly His Ala Lys Arg Val Met Leu Gly Val
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                                25
Trp Ser Phe Leu Arg Gln Phe Met Tyr Thr Lys Phe Val Ile Val Thr
                            40
                                                45
Asp Asp Asp Ile Asn Ala Arg Asp Trp Asn Asp Val Ile Trp Ala Ile
                                            60
Thr Thr Arg Met Asp Pro Lys Arg Asp Thr Val Met Ile Asp Asn Thr
                                        75
                    70
Pro Ile Asp Tyr Leu Asp Phe Ala Ser Pro Val Ser Gly Leu Gly Ser
                                    90
Lys Met Gly Leu Asp Pro Thr His Lys Trp Pro Gly His Thr Thr Arg
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            100
<210> 2391
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<211> 388

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<213> Homo sapiens
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120
aagaccgcgt cgctttcaac cgcgccatcg accattacct gcctacccag ggcttccact
gegteaacga agacetgagt ttegaagaeg ceetgeteta cacegecage etgetegaca
gtgcctctgc cacggcgctg gattgcggtg agctgctgca aagccctgaa cgggcgaaga
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agtgcctgac cgcaccaaag ccctgcct
<210> 2392
<211> 102
<212> PRT
<213> Homo sapiens
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Met Asn Lys Val Leu Pro Asp Pro Pro Ile Asp Pro Ala Lys Asp Arg
                                     10
1
                 5
Val Ala Phe Asn Arg Ala Ile Asp His Tyr Leu Pro Thr Gln Gly Phe
            20
                                25
His Cys Val Asn Glu Asp Leu Ser Phe Glu Asp Ala Leu Leu Tyr Thr
Ala Ser Leu Leu Asp Ser Ala Ser Ala Thr Ala Leu Asp Cys Gly Glu
Leu Leu Gln Ser Pro Glu Arg Ala Lys Ile Leu Ala Val Trp His Leu
                    70
                                         75
Leu Glu Ile Ala Lys Thr Thr Val Asp Arg Phe Pro Ile Glu Cys Leu
                                    90
Thr Ala Pro Lys Pro Cys
            100
<210> 2393
<211> 411
<212> DNA
<213> Homo sapiens
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atggtcaccg accccatcac tgcgcgcccg gatatgacca tcggggaagt agacgcgctg
tgegeeeget teegeatete eggeetgeeg gtggtagaeg aggaeggeae eetgatggge
180
atttgcacca cccgcgatat gcgcttcgag cctgactttg accgcaaggt cagcgaggtc
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atgacggcta tgccgcttgt tgttgcgcgc gagggtgtat ctaagaagga agccctcgaa
ctgctctcgg ccaataaggt ggaaaagctg cccatcgtcg atgcggataa taagctcacc
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<210> 2394
<211> 137
<212> PRT
<213> Homo sapiens
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Asn Leu Ser Thr Glu Asp Gln Ala Glu Gln Val Glu Ile Val Lys Arg
1
Ser Glu Ser Gly Met Val Thr Asp Pro Ile Thr Ala Arg Pro Asp Met
                                25
Thr Ile Gly Glu Val Asp Ala Leu Cys Ala Arg Phe Arg Ile Ser Gly
                                                45
                            40
Leu Pro Val Val Asp Glu Asp Gly Thr Leu Met Gly Ile Cys Thr Thr
Arg Asp Met Arg Phe Glu Pro Asp Phe Asp Arg Lys Val Ser Glu Val
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Met Thr Ala Met Pro Leu Val Val Ala Arg Glu Gly Val Ser Lys Lys
Glu Ala Leu Glu Leu Leu Ser Ala Asn Lys Val Glu Lys Leu Pro Ile
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Val Asp Ala Asp Asn Lys Leu Thr Gly Leu Ile Thr Val Lys Asp Phe
                            120
        115
Val Lys Thr Glu Gln Tyr Pro Asn Ala
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<212> DNA
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ttagcaatat taatctgacc ttttcctggt gattgggcat ttagtaataa tgcggggcca
180
atatcatcat actttccaaa tatttttgat tttttagaca tcaactgaag ttgtgaccat
ttactgtctt tgtcttgatg gcaatctaaa caaacatctc ttgtattaag ttgttcactt
acccaaggat taggcactct aaaggcatga tcgcgtcgat catcgactcc catgtaacgc
360
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362
<210> 2396
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<211> 117
<212> PRT
<213> Homo sapiens
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Trp Val Ser Glu Gln Leu Asn Thr Arg Asp Val Cys Leu Asp Cys His
Gln Asp Lys Asp Ser Lys Trp Ser Gln Leu Gln Leu Met Ser Lys Lys
                            40
Ser Lys Ile Phe Gly Lys Tyr Asp Asp Ile Gly Pro Ala Leu Leu Leu
                        55
Asn Ala Gln Ser Pro Gly Lys Gly Gln Ile Asn Ile Ala Lys Leu Val
                    70
                                         75
Val Asp Glu Ser Gln Pro Pro Met Arg Arg Ala Val Leu Leu Gly His
                                    90
Leu Asp Met Thr Lys Val Glu Asn Met Gln Ile Leu Asn Thr Leu Ala
            100
                                105
Asn Ser Ser Glu Ser
        115
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<211> 449
<212> DNA
<213> Homo sapiens
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aagggtacat caacaacact ctctccatct tcaaagtcgc agacttcaaa aacaaaagca
agggaaaccc gtactctgac ctgggtaacc ataccacatg caggtatcgt gatttccgat
acceaectgg acaececeag gagtataaac acaacateta etattggcat gtgattgcag
ccaaqctggc ttttatcatt gtcatggagc acgtcatcta ctctgtgaaa tttttcattt
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taacccaaaa gcttcttcat gagaatcac
449
<210> 2398
<211> 76
<212> PRT
<213> Homo sapiens
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Cys Thr Thr Gly Pro Ser Pro Ser Leu Pro Thr Gly Thr Thr Leu Pro
Thr Pro Trp Lys Gly Thr Ser Thr Thr Leu Ser Pro Ser Ser Lys Ser
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25
Gln Thr Ser Lys Thr Lys Ala Arg Glu Thr Arg Thr Leu Thr Trp Val
                           40
Thr Ile Pro His Ala Gly Ile Val Ile Ser Asp Thr His Leu Asp Thr
        •
                       55
Pro Arg Ser Ile Asn Thr Thr Ser Thr Ile Gly Met
                    70
<210> 2399
<211> 344
<212> DNA
<213> Homo sapiens
<400> 2399
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gtttctgacg atcgagcgcc tggccatgtc aggggaactt tcgggtaaag aacaggaact
agtcaaaccc tttgctggtc cggccaggct tggaggggtt cgaaaaccta caacgccaca
aaacggttcc agcactgggt ttataaacag cctaaaatcc cgacaagtaa agaactcgat
acceptatege ttgagatege acacaceete gegegtegatt gete
344
<210> 2400
<211> 112
<212> PRT
<213> Homo sapiens
<400> 2400
Met Leu His Glu Thr Gly His Ala Leu His Tyr Gln Ala Ala Gly Lys
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His Asn Leu Tyr Phe Glu Arg Val Ala Pro Val Glu Ile Met Glu Phe
            20
Val Ala Tyr Cys Leu Gln Phe Leu Thr Ile Glu Arg Leu Ala Met Ser
                            40
        35
Gly Glu Leu Ser Gly Lys Glu Gln Glu Leu Val Lys Pro Phe Ala Gly
                        55
Pro Ala Arg Leu Gly Gly Val Arg Lys Pro Thr Thr Pro Gln Asn Gly
                                        75
Ser Ser Thr Gly Phe Ile Asn Ser Leu Lys Ser Arg Gln Val Lys Asn
                                    90
                85
Ser Ile Pro Tyr Gly Leu Arg Cys Asp Thr Arg Ser Gly Trp Ile Gly
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<210> 2401
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<212> DNA
<213> Homo sapiens
<400> 2401
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120
gactttgagt tttcctttac ctacctgcag tacttcgaca aactagagcg cgccaacttc
gegetcaacc aactgetgga teteacegaa gaeggeaceg aetgggatga eegegaegtg
gctacttccc tegagetcac aggegacgac ggeggetggt ggtcattttt caccaacete
gtggacaagt acggcgcagt cccggccgag gtcatgcctg aggtgcactc gtccggccac
acegaccaga tgaategega tategecace atcateegee gegeegegea cegtgeggtg
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<211> 159
<212> PRT
<213> Homo sapiens
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Ser Gly Arg Cys Trp Met Phe Ala Ala Leu Asn Val Phe Arg His Arg
Ala Ala Lys Glu Leu Asn Ile Asp Asp Phe Glu Phe Ser Phe Thr Tyr
                             40
Leu Gln Tyr Phe Asp Lys Leu Glu Arg Ala Asn Phe Ala Leu Asn Gln
                        55
Leu Leu Asp Leu Thr Glu Asp Gly Thr Asp Trp Asp Asp Arg Asp Val
                    70
                                         75
                                                             80
Ala Thr Ser Leu Glu Leu Thr Gly Asp Asp Gly Gly Trp Trp Ser Phe
Phe Thr Asn Leu Val Asp Lys Tyr Gly Ala Val Pro Ala Glu Val Met
                                105
Pro Glu Val His Ser Ser Gly His Thr Asp Gln Met Asn Arg Asp Ile
        115
                            120
Ala Thr Ile Ile Arg Arg Ala Ala His Arg Ala Val Glu Gly Glu Gly
                        135
Asp Arg Gly Gly Ile Val Lys Gln Ala Arg Pro Asp Ile Gln Arg
                    150
<210> 2403
<211> 387
<212> DNA
<213> Homo sapiens
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gtgcagcgta ttgccgccga gaccggccgt gatatecgtt cgctgategg tgacgccgcg
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tteetcaage geetggaeee gaagaagtae aeegaegaaa eetteggtgt geegaeeate
accgacatco tgcaagagct ggaaaaacct ggccgcgacc cgcgtcccga gttcaagacc
geegagttee aggaeggtgt tgaagaeete aaggaeetge ageegggeat gateetegaa
300
ggcgtggtca ccaacgtgac caactttggc gcctttgtgg atateggcgt gcatcaggac
360
ggtttggtgc acatctctgc actttcg
387
<210> 2404
<211> 129
<212> PRT
<213> Homo sapiens
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Xaa Met Asn Gly Asp Asn Pro Leu Asp Ser Ser Ala Val His Pro Glu
                                    10
Ala Tyr Pro Leu Val Gln Arg Ile Ala Ala Glu Thr Gly Arg Asp Ile
                                25
Arg Ser Leu Ile Gly Asp Ala Ala Phe Leu Lys Arg Leu Asp Pro Lys
Lys Tyr Thr Asp Glu Thr Phe Gly Val Pro Thr Ile Thr Asp Ile Leu
                        55
Gln Glu Leu Glu Lys Pro Gly Arg Asp Pro Arg Pro Glu Phe Lys Thr
                    70
Ala Glu Phe Gln Asp Gly Val Glu Asp Leu Lys Asp Leu Gln Pro Gly
                                    90
Met Ile Leu Glu Gly Val Val Thr Asn Val Thr Asn Phe Gly Ala Phe
            100
                                105
Val Asp Ile Gly Val His Gln Asp Gly Leu Val His Ile Ser Ala Leu
                                                 125
                             120
        115
Ser
<210> 2405
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<212> DNA
<213> Homo sapiens
<400> 2405
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aaattaaatg gaataatttg ctttatgaga agetcaecat tgggggtcatt cttattttt
ctcactccac atttcactac aaaccaagga aagctccctc atggaccgac atctggtgag
cetteatete teccetggea atgeetggee acetgaeace tggeetecet ectettteea
geaateetgg taccaacgaa tggetcacca ccacccacce caatgeecag acegcagace
tgcatteete ccateteaca gececaaate caaacegtta tteattetae eteccateet
360
```

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actectcacg aatttettee accgtagact etggttaatt ggactgactg aageccaggg
420
gtcagtttct gtcctaagag cgctccaggt ggctgcaccc tgtgcccaga gccaggcccc
480
etgetatagg etegetgeae teeccetgea ggtgetgggg acacegeaac cetecteetg
540
gggacaccta cttgcctttg caggccctcg ggggtcactt ctcccaggaa gccgcctctg
ggtgaggtaa tatccctcta tcacagcatt ggccacacca cattgcaaac gctgctgggg
660
tecactgtet teaccaatta caccatgage tecacagaet ecaggaceat ggettetace
totcagttcc cagtgctagc tatggggccc agcacacagg gaacagcagt tcaattaccc
agttcactga agggcagacc tgggatcata cagggagcaa ggaagcttga gccccttcag
gagaagggga agaacgcgt
859
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<211> 149
<212> PRT
<213> Homo sapiens
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Met Asp Arg His Leu Val Ser Leu His Leu Ser Pro Gly Asn Ala Trp
Pro Pro Asp Thr Trp Pro Pro Ser Ser Phe Gln Gln Ser Trp Tyr Gln
            20
                                25
Arg Met Ala His His Pro Pro Gln Cys Pro Asp Arg Arg Pro Ala
                                                 45
                            40
Phe Leu Pro Ser His Ser Pro Lys Ser Lys Pro Leu Phe Ile Leu Pro
                                            60
Pro Ile Leu Leu Thr Asn Phe Phe His Arg Arg Leu Trp Leu Ile
                                        75
                    70
Gly Leu Thr Glu Ala Gln Gly Ser Val Ser Val Leu Arg Ala Leu Gln
                                    90
Val Ala Ala Pro Cys Ala Gln Ser Gln Ala Pro Cys Tyr Arg Leu Ala
                                105
            100
Ala Leu Pro Leu Gln Val Leu Gly Thr Pro Gln Pro Ser Ser Trp Gly
                            120
His Leu Leu Ala Phe Ala Gly Pro Arg Gly Ser Leu Leu Pro Gly Ser
                        135
Arg Leu Trp Val Arg
145
<210> 2407
<211> 303
<212> DNA
<213> Homo sapiens
<400> 2407
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gtattcatcg agcaaggcca gcgacgtatc ccggtgcagt acgccaagcg gatggtgggg
cgccgaatgt ttggtggctc gacgacgtac attccgctca aggtaaacca atctggcgtt
atcccggtca totttgcctc gtcgatcctg taccttccgg tgctctacgc aactttccgg
ccgcagacgt ccgcggcaaa gtggatcggt cactacttca cgcgcggtga ccatccggtg
tac
303
<210> 2408
<211> 101
<212> PRT
<213> Homo sapiens
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Xaa Ala Trp Phe Ile Phe Ser Met Val Ile Ala Ile Gly Leu Ala Val
                                    10
1
Met Ala Ala Val Val Phe Ile Glu Gln Gly Gln Arg Arg Ile Pro Val
            20
                                25
Gln Tyr Ala Lys Arg Met Val Gly Arg Arg Met Phe Gly Gly Ser Thr
                            40
                                                 45
Thr Tyr Ile Pro Leu Lys Val Asn Gln Ser Gly Val Ile Pro Val Ile
Phe Ala Ser Ser Ile Leu Tyr Leu Pro Val Leu Tyr Ala Thr Phe Arg
                                        75
Pro Gln Thr Ser Ala Ala Lys Trp Ile Gly His Tyr Phe Thr Arg Gly
                                    90
Asp His Pro Val Tyr
            100
<210> 2409
<211> 322
<212> DNA
<213> Homo sapiens
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cctcccggcc caacaggagg ggaagccgaa attcagattg tggaaactgc ctacaatttt
120
cttccggcca aatgaccctc cctaggctac caagaccctg gcctaagggg agccgaggtc
180
teggecegae tgeagaegee egeaceetga etecagatge etecgaggea tecaggtggg
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322
<210> 2410
<211> 106
<212> PRT
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<213> Homo sapiens <400> 2410 Met Val Ser Ser Pro His Cys Val Ser Pro Glu Ser Asn Trp Arg Pro Ser Asp Thr Thr Ser Arg Pro Asn Arg Arg Gly Ser Arg Asn Ser Asp Cys Gly Asn Cys Leu Gln Phe Ser Ser Gly Gln Met Thr Leu Pro Arg Leu Pro Arg Pro Trp Pro Lys Gly Ser Arg Gly Leu Gly Pro Thr Ala 55 Asp Ala Arg Thr Leu Thr Pro Asp Ala Ser Glu Ala Ser Arg Trp Ala 70 75 Leu Arg Gly Leu Leu Trp Leu Cys Ser Cys Trp Leu Gly Trp Gly Ser 95 Asp Leu Val Arg Asp Met Ser Val Ser Val 100 <210> 2411 <211> 371 <212> DNA <213> Homo sapiens <400> 2411 ccatgggctg ggtgctggag acacgagatc aggcaggccc tgcccctggg gctcattcta gggtctgcgg cagacaggga gacagaggga getgtgagag ceetgagget gagtggettt ctggggaagc accateceta gggaecteeg egtteggtea gtggeegetg etgteggtgt gcagagcaga ggctggggcg agagtggtca gcaggcctgc tggtggcagc ttgtgcagga agggaggatg gaggttggct tgtggctggc aagagggtgg catgcacgtc gctgaaaggc aggeotggge cegaggeotg ggtgtgggga egeotgagga gaetgtacag tgtggagteg 360 ggggggctgc g 371 <210> 2412 <211> 123 <212> PRT <213> Homo sapiens <400> 2412 Met Gly Trp Val Leu Glu Thr Arg Asp Gln Ala Gly Pro Ala Pro Gly 10 Ala His Ser Arg Val Cys Gly Arg Gln Gly Asp Arg Gly Ser Cys Glu Ser Pro Glu Ala Glu Trp Leu Ser Gly Glu Ala Pro Ser Leu Gly Thr Ser Ala Phe Gly Gln Trp Pro Leu Leu Ser Val Cys Arg Ala Glu Ala

Gly Ala Arg Val Val Ser Arg Pro Ala Gly Gly Ser Leu Cys Arg Lys

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80
                                        75
                    70
65
Gly Gly Trp Arg Leu Ala Cys Gly Trp Gln Glu Gly Gly Met His Val
                85
Ala Glu Arg Gln Ala Trp Ala Arg Gly Leu Gly Val Gly Thr Pro Glu
                                105
            100
Glu Thr Val Gln Cys Gly Val Gly Gly Ala Ala
                            120
        115
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<212> DNA
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780
gcqt
784
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<211> 137
<212> PRT
<213> Homo sapiens
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Thr Cys Gly Leu Trp Val His Ser Pro Gln Trp Gln Asn Leu Gln Ser
```

```
40
His Ile Cys Trp Ala Glu Pro Ala Trp His Glu Gln Gly Phe Ser Leu
                         55
                                            60
Leu Trp Pro Pro Leu Phe Asn Thr Val Leu Leu Ser Lys Asn Trp Leu
Gly Gly Ala Gly Pro Pro Cys Asn Leu Gln Ala Cys His Leu Val Val
                                     90
                85
Ser Phe Cys Ser Ala Ala Ser Gln Gly Phe Ser Ala Pro Gly Ala Gly
                                 105
Trp Trp Gly Pro Ala Leu Leu Arg Leu Ile Arg Lys Asp Ala Leu His
                                                 125
Gly Lys Ser Ser Pro Gln Pro Pro Val
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                         135
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<213> Homo sapiens
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1020
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ctcctgtgat ctctgtgttt tcccttttct ttctggggcc aggaagtcag ggtcaactcc
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1380
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2160
aaaa
2164
<210> 2416
<211> 213
<212> PRT
<213> Homo sapiens
<400> 2416
Met Glu Val Leu Arg Arg Ser Ser Val Phe Ala Ala Glu Ile Met Asp
Ala Phe Asp Arg Trp Pro Thr Asp Lys Glu Leu Val Ala Gln Ala Lys
Ala Leu Gly Arg Glu Tyr Val His Ala Arg Leu Leu Arg Ala Gly Leu
                           40
        35
Ser Trp Ser Ala Pro Glu Arg Ala Ser Pro Ala Pro Gly Gly Arg Leu
```

```
55
    50
                                             60
Ala Glu Val Cys Ala Val Leu Leu Arg Leu Gly Asp Glu Leu Glu Met
Ile Arg Pro Ser Val Tyr Arg Asn Val Ala Arg Gln Leu His Ile Ser
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Leu Gln Ser Glu Pro Val Val Thr Asp Ala Phe Leu Ala Val Ala Gly
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His Ile Phe Ser Ala Gly Ile Thr Trp Gly Lys Val Val Ser Leu Tyr
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Ala Val Ala Ala Gly Leu Ala Val Asp Cys Val Arg Gln Ala Gln Pro
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Ala Met Val His Ala Leu Val Asp Cys Leu Gly Glu Phe Val Arg Lys
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                                         155
Thr Leu Ala Thr Trp Leu Arg Arg Gly Gly Trp Thr Asp Val Leu
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                                     170
Lys Cys Val Val Ser Thr Asp Pro Gly Leu Arg Ser His Trp Leu Val
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Ala Ala Leu Cys Ser Phe Gly Arg Phe Leu Lys Ala Ala Phe Phe Val
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Leu Leu Pro Glu Arg
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<213> Homo sapiens

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Phe Ile Cys Met Thr Cys Ser Gly Ile His Arg Ser Leu Gly Val His
                                             60
Ile Ser Lys Val Arg Ser Ala Thr Leu Asp Thr Trp Leu Pro Glu Gln
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Val Ala Phe Ile Gln Ser Met Gly Asn Glu Lys Ala Asn Ser Tyr Trp
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Glu Ala Glu Leu Pro Pro Asn Tyr Asp Arg Val Gly Ile Glu Asn Leu
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aaccagaaac togoogacgt cacgoogogo cogogtooga gocaggoogo ottoagooto
gaeggeetge aegeeetgae egggggegag eegetgetga tgegtegett gategaegag
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Asp Cys Asn Met Pro Val Leu Asn Gly Tyr Glu Met Thr Arg Arg Leu
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Arg Glu His Glu Ala Xaa Ala Met Thr Ser Arg Pro Ala Arg Gly Phe
Gly Phe Thr Ala His Ala Gln Pro Glu Glu Arg Pro Arg Cys Lys Glu
                                            60
Ala Gly Met Asn Asp Cys Leu Phe Lys Pro Ile Ser Leu Thr Thr Leu
                                        75
Asn Gln Lys Leu Ala Asp Val Thr Pro Arg Pro Arg Pro Ser Gln Ala
                85
Ala Phe Ser Leu Asp Gly Leu His Ala Leu Thr Gly Gly Glu Pro Leu
                                105
Leu Met Arg Arg Leu Ile Asp Glu Leu Leu Ser Ser Cys Gln Ala Ala
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Arg Glu Ala Leu Leu Gly Leu Pro Ile
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293
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Phe Leu Leu Ile Trp Ser Val Lys Cys Cys Arg Ala Gln Leu Glu Ala
                                25
Arg Arg Ser Arg His Pro Ala Asp Gly Ala Gln Glu Arg Cys Cys
Val Pro Pro Gly Glu Arg Cys Pro Ser Ala Pro Asp Asn Gly Glu Glu
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Asn Val Pro Leu Ser Gly Lys Val
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<211> 142
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Asp Asp Asp Leu Ile Ala Glu Met Ala Gly Leu Gln Ala Ala Gln Ser
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Ile Arg Glu Ser Leu Asn Lys Ala Asp Val Leu Leu Asn Gly Val Glu
                            40
Thr Ser Thr Gly Pro Gln Pro Gly Ala Leu Ala Leu Leu Glu Gln Ala
Val His Glu Leu Asp Gly Thr Gly Asp Ala Asp Pro Arg Ala Ala Glu
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                    70
Leu Ala Glu Arg Ala Arg Gln Met Ser Tyr Asp Leu Thr Asp Leu Ala
                                    90
Ala Ser Val Ala Gly His Ala Ala Arg Ala Glu Ala Asp Pro Gln Arg
                                                    110
                                105
Leu Glu Glu Leu Gly Gly Arg Leu Ala Ala Ile Gln Arg Leu Leu Arg
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Ala Arg Thr Thr Leu Asp Asp Leu Leu Asp Ser Thr Ala
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attaatgcga aagaagttaa gaactatact gcttcttatg aattagtgag aagtatgcgt
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409
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                                 25
Leu Leu Ser Glu Gly Asp Ile Asn Leu Ser Asn Val Pro Leu Leu Lys
                             40
Asp Ile Ala Thr Thr Ile Glu Leu Leu Lys Glu Leu Gly Ala Thr Ala
                        55
                                             60
Thr Gln Thr Gln His Cys Val His Ile Asn Ala Lys Glu Val Lys Asn
                    70
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Tyr Thr Ala Ser Tyr Glu Leu Val Arg Ser Met Arg Ala Ser Ile Leu
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Ala Leu Gly Pro Leu Val Ala Arg Phe Gly Glu Ala
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            20
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Lys Ser Lys Gly Cys Val Trp Asn Thr Ala Val Thr Glu Lys Val Leu
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Phe Ala Gln Ser Ala Arg Pro Leu Leu Ser Leu Met Ser Pro Asp
Trp Ala Phe Ile Val Pro Cys Thr Glu Ala Ser Leu Ser Pro Arg Ser
                    70
                                        75
Cys Leu Phe Gly Arg Gly Ser Thr Asn Gly Ser Thr Leu Pro Pro Thr
                                    90
                85
Pro Thr Ala Arg Pro Ala Gly Pro Val Val Gln Leu Glu Lys Ala Arg
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            100
Leu Leu Ser Ser Pro Ala Leu Cys Cys Ala Gly Ala Leu His Leu Asn
Phe Arg Gly Lys Pro Gly Lys Arg Leu
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240
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Xaa Ala Ala Asp Asn Val Leu Arg Thr Ser Met Glu Leu Gly Xaa Asn
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Ala Pro Phe Ile Val Phe Glu Asp Ala Asp Ile Asp Gln Ala Val Gln
                           40
Gly Ala Met Gly Ala Lys Met Arg Asn Ile Gly Glu Ala Cys Thr Ala
                       55
Ala Asn Arg Phe Leu Val His Glu Ser Val Ala Glu Glu Phe Ser Glu
                   70
                                       75
Lys Leu Val Ala Glu Phe Glu Lys Leu Asn Leu Gly Asn Gly Met Asp
Glu Gly Ile Thr Cys Gly Pro Leu Val Glu Ser Lys Ala Leu Glu Ser
Ile Ala Ala Leu Val Asp Asp Ala Ala Glu Lys Gly Ala Thr Ile Ser
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Thr Gly Gly Lys Arg
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<213> Homo sapiens
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Val Leu Asp Gly Asn Arg Trp His Ser Lys Gly Gly Ala Gln Phe Arg
Glu Met Pro Met Tyr Gly Phe Gly Pro Met Pro Gln Pro Asp Leu Arg
                        55
Asp Leu Arg Gly Ser Ala Pro Arg Pro Pro Leu His Ile Cys Asp Pro
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                                        75
Thr His Phe His Pro Ser Ala Thr Phe Lys Phe Gln Ser Phe His Phe
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780
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                                25
Val Val Phe Ser Asp Val Asn Ser Met Tyr Leu Ser Ser Thr Glu Pro
                            40
Pro Ala Ala Ala Glu Trp Ala Cys Leu Leu Arg Pro Leu Arg Gly Arg
Glu Pro Glu Gly Val Trp Asn Leu Leu Ser Ile Val Arg Glu Met Phe
                    70
                                        75
Lys Arg Arg Asp Ser Asn Ala Ala Pro Leu Leu Glu Ile Leu Thr Asp
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ser		GIU	GIY	GIY	ASD	295	Ala	Deu	HIS	DyS	300	- 1		-	,
C1.,	290	- ות	T	א ז <u>-</u>	Leu		Glv	λla	Glv	Ser		Ser	Lvs	Glv	Ser
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_ =	450		_		~-1	455	~1		~ 1	~1··		uic	N cm	Len	Dhe
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Xaa Val Arg Ala Ile Leu Arg Arg Thr Pro Ser Arg Glu Asp Glu Lys Met Leu Gln Thr Ala Asp Gly Arg Leu Arg Ile Asp Ile Glu Ser Met 25 Arg Thr Phe Val Glu Gly Lys Glu Val His Leu Thr Lys Asn Glu Phe Leu Ile Val Gln Thr Leu Phe Thr His Pro Asn Lys Ile Tyr Thr Arg Asp Glu Ile Ile Glu Val Thr Phe Gly Met Asp Tyr Glu Ala Phe Asp 70 Arg Ala Ile Asp Thr His Ile Lys Asn Ile Arg Gln Lys Ile Glu Ala 85 90 Asp Pro Lys Asn Pro Val Tyr Ile Arg Thr Val Tyr Gly Val Gly Tyr 100 105 Leu Pro Gly Gly Phe Asp Glu Ala <210> 2445 <211> 403 <212> DNA <213> Homo sapiens <400> 2445 agatotgttg aatgaagcag gtgccactta gacattcact toactgacto caaccacaac ctccccttca tttgatatcc tgctcttggc agaaggatgg agaaagagca tcgcacaaag 120 aggaagcatg tttatcctgt tcagattact gettetgeca ggetgetget getgttgggt 180 tetgeacatt tgetetttat taagcaaatg teagagetgg gtgetggeaa gggaateece tgtatttaca caggtaaacc tgagagccag agggccccaa accatcctgg ctgcgaggga caagctatta gagttaataa cagtgcactg gcattccttc aaaatcctaa tggaagcata aataaaaaga ggaaagtccc ctttacccaa gaacctgaaa aan 403 <210> 2446 <211> 102 <212> PRT <213> Homo sapiens <400> 2446 Met Glu Lys Glu His Arg Thr Lys Arg Lys His Val Tyr Pro Val Gln 10 Ile Thr Ala Ser Ala Arg Leu Leu Leu Leu Cly Ser Ala His Leu Leu Phe Ile Lys Gln Met Ser Glu Leu Gly Ala Gly Lys Gly Ile Pro Cys Ile Tyr Thr Gly Lys Pro Glu Ser Gln Arg Ala Pro Asn His Pro Gly Cys Glu Gly Gln Ala Ile Arg Val Asn Asn Ser Ala Leu Ala Phe

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75
                    70
Leu Gln Asn Pro Asn Gly Ser Ile Asn Lys Lys Arg Lys Val Pro Phe
                85
Thr Gln Glu Pro Glu Lys
            100
<210> 2447
<211> 744
<212> DNA
<213> Homo sapiens
<400> 2447
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gacctggtgc ggcccacttc gtaccgcaat gcctggtcaa ccctcgacac tttgctgggg
ttgggcgtcg tgccgatcgt caacgagaac gacacggtcg ccaccggaga aattcggttt
ggcgataatg atcggcttgc tgccctggta gccgagctgg tgcgcgctca agccctcatt
ctgetetetg aegttgaege ettgtaeace geceateegg atteaeegga tgetegtege
gtggaggttg tggaggacat cgatgcattg gatgtcgata cccataaagc tggttcgggg
gtgggaaccg gcggcatgac cacgaaactt gaagccgccc gaatggccac ctgtgccggg
gtaccggtgg tactcgcagc ggcggtggat gccccggacg ttctggctgg tgcccccgtg
ggtacctact tecgeeeget ggegaegega eggeeeegae ggttgetgtg gttggeegae
gctgccaccc cgcagggaca gatcgtcatc gacgacggag ctgtcgaagc tttgacacag
cgtcattcct cgttgttggc ggtgggtgtg actcgggtac acggggattt ccaagcaggc
gacccagtga cgatcctggc ctccgacggt cgagttgttg gtcgcggtat cgcccagttc
teccatgatg aggtgegegt catg
744
<210> 2448
<211> 248
<212> PRT
<213> Homo sapiens
<400> 2448
Xaa Ala Ser Arg Phe Ala Ser His Gly Leu Arg Val Gly Gln Val Leu
                 5
                                    10
Leu Thr Val Asn Asp Leu Val Arg Pro Thr Ser Tyr Arg Asn Ala Trp
                                25
Ser Thr Leu Asp Thr Leu Leu Gly Leu Gly Val Val Pro Ile Val Asn
                            40
Glu Asn Asp Thr Val Ala Thr Gly Glu Ile Arg Phe Gly Asp Asn Asp
                        55
Arg Leu Ala Ala Leu Val Ala Glu Leu Val Arg Ala Gln Ala Leu Ile
```

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65
                    70
                                        75
Leu Leu Ser Asp Val Asp Ala Leu Tyr Thr Ala His Pro Asp Ser Pro
                                    90
                85
Asp Ala Arg Arg Val Glu Val Val Glu Asp Ile Asp Ala Leu Asp Val
            100
                                105
Asp Thr His Lys Ala Gly Ser Gly Val Gly Thr Gly Gly Met Thr Thr
                            120
Lys Leu Glu Ala Ala Arg Met Ala Thr Cys Ala Gly Val Pro Val Val
                        135
                                            140
Leu Ala Ala Ala Val Asp Ala Pro Asp Val Leu Ala Gly Ala Pro Val
                    150
                                        155
Gly Thr Tyr Phe Arg Pro Leu Ala Thr Arg Arg Pro Arg Arg Leu Leu
           165
                                    170
Trp Leu Ala Asp Ala Ala Thr Pro Gln Gly Gln Ile Val Ile Asp Asp
                                185
                                                    190
            180
Gly Ala Val Glu Ala Leu Thr Gln Arg His Ser Ser Leu Leu Ala Val
                            200
Gly Val Thr Arg Val His Gly Asp Phe Gln Ala Gly Asp Pro Val Thr
                        215
                                            220
Ile Leu Ala Ser Asp Gly Arg Val Val Gly Arg Gly Ile Ala Gln Phe
                    230
                                        235
Ser His Asp Glu Val.Arg Val Met
                245
<210> 2449
<211> 296
<212> DNA
<213> Homo sapiens
<400> 2449
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ctactgetet eccetectee etgggeeetg tectateece agaggeeaga eaggeettee
tegeatgeaa gagteteect egeeetgeeg gaeagtggee teeatetaee tgeetgtett
getggactee agaacactee agteetttee ecettggggg ttgggggggg ceeeceettt
ttttcccccc ctttccctct tcattccaca ggaggccagc ctcaacatcc ccnccc
296
<210> 2450
<211> 90
<212> PRT
<213> Homo sapiens
<400> 2450
Met Asn Thr Cys Arg His Gln Leu Pro Lys Ile Ser Tyr Cys Ser Pro
Leu Leu Pro Gly Pro Cys Pro Ile Pro Arg Gly Gln Thr Gly Leu Pro
                                25
           20
Arg Met Gln Glu Ser Pro Ser Pro Cys Arg Thr Val Ala Ser Ile Tyr
                            40
Leu Pro Val Leu Leu Asp Ser Arg Thr Leu Gln Ser Phe Pro Pro Trp
```

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60
                        55
Gly Leu Gly Gly Ala Pro Pro Phe Phe Pro Pro Leu Ser Leu Phe Ile
                    70
Pro Gln Glu Ala Ser Leu Asn Ile Pro Xaa
                85
<210> 2451
<211> 589
<212> DNA
<213> Homo sapiens
<400> 2451
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tgcaacgatg atcttgtgag cgatgtattg accggtgtgt gggccgatct tgtgggccag
120
gagaaggetg teggggteet gegtegtgee geegaatege ageeggggeg etegteecat
180acgcatggct cattacgggt ccgcctggat caggtcggtc gaatgctgcg
aaggeetttg cageggeget acagtgegte gaccatggat gegggeagtg caatgeetgt
cgaaccngcc tgtcaggcgc ccatcctgac gtcaccctcg tgcgtactga ggcgctgtct
360
attggcgtcg attgaggtcg tgaaatgggt ttgttcgagc gggcgatgaa ttcgggtccc
cggggcgtcc ccagggttgt cgtcgtcgaa gatgccgacc gcatcactga acgcggagct
gacgccttgc ttaaagctat cgaggagcct gcgccgaaaa ccgtctggtt gctgtgtgcc
cctactccag aggacgtcat cgtcacgatc aggtcgagat gtcggcgcc
589
<210> 2452
<211> 121
<212> PRT
<213> Homo sapiens
<400> 2452
Leu Asp Cys Ser Thr Gly Glu Glu Ser Ser Gly Tyr Asp Val Gly Pro
                                    10
Ile Cys Asn Asp Asp Leu Val Ser Asp Val Leu Thr Gly Val Trp Ala
                                25
Asp Leu Val Gly Gln Glu Lys Ala Val Gly Val Leu Arg Arg Ala Ala
Glu Ser Gln Pro Gly Arg Ser Ser His Ala Met Ser His Ala Trp Leu
                        55
Ile Thr Gly Pro Pro Gly Ser Gly Arg Ser Asn Ala Ala Lys Ala Phe
                                        75
                    70
Ala Ala Ala Leu Gln Cys Val Asp His Gly Cys Gly Gln Cys Asn Ala
                                    90
Cys Arg Thr Xaa Leu Ser Gly Ala His Pro Asp Val Thr Leu Val Arg
            100
Thr Glu Ala Leu Ser Ile Gly Val Asp
        115
                            120
```

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<210> 2453
<211> 695
<212> DNA
<213> Homo sapiens
<400> 2453
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agattcacac attcctacga gcacacatgt gcctgcatga gttattcccc atgtgaacac
acaggttggc acacgcacat gcccctgggt atgctcatgt ccattcatcc atcccagcct
gtgcacgtcc tctcactcct gtgttcacac ctatgcccaa atgaaccaag ggacacacat
gcacaccett atgtggtgca cacacactcg tgcacacgga gccacaccag cacatgetca
gaggcatttg tgtgcgtggg catttgcagc atgactcaga acggagtatg gggtggcgcg
gegtggetgg ggaggtecea teageeegee tetgaaacee teccaacetg eccateetgg
cccaggcact gtgtctccgg cttgggcttc agccccggac cccaggacac cccggacaaa
gaggagetge tetegtetga ageetgetae gaatgeagga teaatggeet eteceetegg
540
gaccggccac gacgcagtgc ccacagggac caccaggtga catgggtgct gcactaggca
ggggtggcca gggaatgggt gagtgtggga aagaggctgt ggacccgact tagtcatgtc
660
agececega agaaggagea eeaggeteea gatet
695
<210> 2454
<211> 166
<212> PRT
<213> Homo sapiens
<400> 2454
Met Ser Tyr Ser Pro Cys Glu His Thr Gly Trp His Thr His Met Pro
                                    10
Leu Gly Met'Leu Met Ser Ile His Pro Ser Gln Pro Val His Val Leu
Ser Leu Leu Cys Ser His Leu Cys Pro Asn Glu Pro Arg Asp Thr His
Ala His Pro Tyr Val Val His Thr His Ser Cys Thr Arg Ser His Thr
                        55
Ser Thr Cys Ser Glu Ala Phe Val Cys Val Gly Ile Cys Ser Met Thr
                    70
Gln Asn Gly Val Trp Gly Gly Ala Ala Trp Leu Gly Arg Ser His Gln
                                    90
                85
Pro Ala Ser Glu Thr Leu Pro Thr Cys Pro Ser Trp Pro Arg His Cys
            100
                                105
Val Ser Gly Leu Gly Phe Ser Pro Gly Pro Gln Asp Thr Pro Asp Lys
                            120
Glu Glu Leu Leu Ser Ser Glu Ala Cys Tyr Glu Cys Arg Ile Asn Gly
```

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135
Leu Ser Pro Arg Asp Arg Pro Arg Arg Ser Ala His Arg Asp His Gln
                   150
                                        155
Val Thr Trp Val Leu His
                165
<210> 2455
<211> 378
<212> DNA
<213> Homo sapiens
<400> 2455
acgcgtcggc agaagcgtca gctgaccgtc ggagccgatc tgtccccagg cgtcgtcagc
ggaaccgcgc agaaggaaat ccacgcgctg ccgatcatga aggcgctccc catgggcgtc
aaagaactcg ttctgggcga atcgaagtgg caggacgagt tgatcaacaa cttcatcgtc
gegetgtttg caggegtggt gttgetgtte geggtgetgg tgetgetgta ceggegettg
ctgccgccgt tcatcaacgt gatgtcgctg gcggtggcac cgctgggcgg gttgatcggc
ctgtggctga ccaacacgcc gatctcgatg ccggtctata tcggcttgat catgctgctc
ggcatcgtcg ccaagaat
378
<210> 2456
<211> 126
<212> PRT
<213> Homo sapiens
<400> 2456
Thr Arg Arg Gln Lys Arg Gln Leu Thr Val Gly Ala Asp Leu Ser Pro
                                    10
Gly Val Val Ser Gly Thr Ala Gln Lys Glu Ile His Ala Leu Pro Ile
                                25
Met Lys Ala Leu Pro Met Gly Val Lys Glu Leu Val Leu Gly Glu Ser
                            40
Lys Trp Gln Asp Glu Leu Ile Asn Asn Phe Ile Val Ala Leu Phe Ala
                        55
Gly Val Val Leu Leu Phe Ala Val Leu Val Leu Leu Tyr Arg Arg Leu
Leu Pro Pro Phe Ile Asn Val Met Ser Leu Ala Val Ala Pro Leu Gly
                                    90
                85
Gly Leu Ile Gly Leu Trp Leu Thr Asn Thr Pro Ile Ser Met Pro Val
                               105
           100
Tyr Ile Gly Leu Ile Met Leu Leu Gly Ile Val Ala Lys Asn
                                                125
                           120
<210> 2457
<211> 754
<212> DNA
<213> Homo sapiens
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<400> 2457
cctaggaatt taccaccatc aaagacttac attaaccagc tatccatgaa ctcacctgag
atgagegaat gtgacatett geacactetg egatggtett eteggeteeg gateagetee
tatgtcaact ggataaagga tcaccttatc aaacagggaa tgaaggctga gcatgctagc
tegettetag aactggcate caccactaag tgtageteag tgaaatatga tgttgaaata
gtagaggaat acttegeteg acagatetea teettetgta gtategaetg tgecaecate
ttgcagctgc atgaaattcc cagtctgcag tccatctaca cccttgatgc cgcgattcta
aaaggcccag gtctttttgg gatgagcatt tttctaaqat ggctqctqag actgatcctc
ataagtcgtc tgagattacc aagaacctac ttccagccac gctgcaactc attgacacct
atgcatcgtt caccagagec tatttgctgc aaaactttaa tgaagaggga acaactgaga
aaccttccaa ggagaaactg caaggctttg ctgctgtttt ggctattgqc tctaqcaqqt
gcaaggcaaa tactctgggt ccgacactgg ttcagaattt gccatcgtca qtqcaqactq
tgtgtgagtc ctggaacaac atcaatacca atgaatttcc caatattqqa tcctqqcqca
720
atgeettige caatgacace atceetteac gegt
754
<210> 2458
<211> 236
<212> PRT
<213> Homo sapiens
<400> 2458
Met Asn Ser Pro Glu Met Ser Glu Cys Asp Ile Leu His Thr Leu Arg
Trp Ser Ser Arg Leu Arg Ile Ser Ser Tyr Val Asn Trp Ile Lys Asp
His Leu Ile Lys Gln Gly Met Lys Ala Glu His Ala Ser Ser Leu Leu
                            40
Glu Leu Ala Ser Thr Thr Lys Cys Ser Ser Val Lys Tyr Asp Val Glu
                        55
                                            60
Ile Val Glu Glu Tyr Phe Ala Arg Gln Ile Ser Ser Phe Cys Ser Ile
Asp Cys Ala Thr Ile Leu Gln Leu His Glu Ile Pro Ser Leu Gln Ser
                                    90
Ile Tyr Thr Leu Asp Ala Ala Ile Leu Lys Gly Pro Gly Leu Phe Gly
Met Ser Ile Phe Leu Arg Trp Leu Leu Arg Leu Ile Leu Ile Ser Arg
                            120
Leu Arg Leu Pro Arg Thr Tyr Phe Gln Pro Arg Cys Asn Ser Leu Thr
                        135
Pro Met His Arg Ser Pro Glu Pro Ile Cys Cys Lys Thr Leu Met Lys
```

```
150
145
Arg Glu Gln Leu Arg Asn Leu Pro Arg Arg Asn Cys Lys Ala Leu Leu
                                    170
                165
Leu Phe Trp Leu Leu Ala Leu Ala Gly Ala Arg Gln Ile Leu Trp Val
            180
                                185
Arg His Trp Phe Arg Ile Cys His Arg Gln Cys Arg Leu Cys Val Ser
                            200
Pro Gly Thr Thr Ser Ile Pro Met Asn Phe Pro Ile Leu Asp Pro Gly
                                            220
                        215
Ala Met Pro Leu Pro Met Thr Pro Ser Leu His Ala
                    230
<210> 2459
<211> 382
<212> DNA
<213> Homo sapiens
<400> 2459
accggtgcac agatcgttct ggccgcgtgc actgccccgc tcaagcaaat cgctatcaac
getggtettg agggeggegt egtggetgag aaggtegetg gtetgeeege aggacaggge
ctcaacgcgg ccaatgacga gtatgtcgac atggtagagg ccggcatcat tgacccggcc
aaggtgaccc gttcggctct gcagaacgcc gcgtccatcg cggccctgtt cctcaccact
gaagccgtca tcgctgacaa gcccgagcct gttaaggctc ccgctggcgg cggtgatatg
gacggtatgg gtggcatggg cggcatgatg tgatcgtgta ttgccttcgc tgatttgagt
gggatgccac tttgccccag gc
382
<210> 2460
<211> 110
<212> PRT
<213> Homo sapiens
<400> 2460
Thr Gly Ala Gln Ile Val Leu Ala Ala Cys Thr Ala Pro Leu Lys Gln
Ile Ala Ile Asn Ala Gly Leu Glu Gly Gly Val Val Ala Glu Lys Val
                                25
Ala Gly Leu Pro Ala Gly Gln Gly Leu Asn Ala Ala Asn Asp Glu Tyr
Val Asp Met Val Glu Ala Gly Ile Ile Asp Pro Ala Lys Val Thr Arg
                        55
Ser Ala Leu Gln Asn Ala Ala Ser Ile Ala Ala Leu Phe Leu Thr Thr
                                        75
Glu Ala Val Ile Ala Asp Lys Pro Glu Pro Val Lys Ala Pro Ala Gly
Gly Gly Asp Met Asp Gly Met Gly Gly Met Gly Gly Met Met
            100
                                105
                                                    110
```

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<210> 2461
<211> 558
<212> DNA
<213> Homo sapiens
<400> 2461
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tgcaatgctg tttgtcgtca tgctcggggg caagcaccca cgggctaaaa tcgaaattca
cgatgtggta ttcgcagtcg cggatacgct gcaacacacc tacacccaat tgcgcgacgg
ctggttcggc agccctaagg tgtgcatatc gatgcgtgga tggccgtcga tggcgtcgac
ggctggaaag tegaaeteag ceagatggeg eegeetgeeg aegegeatea eetgtaette
ateaaceteg geggetaega ggecaaeget tttggegagg cecateatta cetgetggtg
gtcgcccggg acaaacagga agccaagcgc aaggggcagc ggcaaatgtt gcaacactgg
teccaggeee acacegatgg egtaatggat ategacgaet gettgeegat tgatetggtg
gaeggteget atgttcacct ggtgcaagge eegcaecage egatcateca gcaeaacgae
540
tacatcatcc tgccgcga
558
<210> 2462
<211> 148
<212> PRT
<213> Homo sapiens
<400> 2462
Met Val Ser Leu Phe Gln Val Ala Arg Thr Asp Leu Gln Cys Cys Leu
                                    10
                                                        15
Ser Ser Cys Ser Gly Ala Ser Thr His Gly Leu Lys Ser Lys Phe Thr
Met Trp Tyr Ser Gln Ser Arg Ile Arg Cys Asn Thr Pro Thr Pro Asn
                            40
Cys Ala Thr Ala Gly Ser Ala Ala Leu Arg Cys Ala Tyr Arg Cys Val
Asp Gly Arg Arg Trp Arg Arg Leu Glu Ser Arg Thr Gln Pro Asp
                                        75
Gly Ala Ala Cys Arg Arg Ala Ser Pro Val Leu His Gln Pro Arg Arg
                85
Leu Arg Gly Gln Arg Phe Trp Arg Gly Pro Ser Leu Pro Ala Gly Gly
            100
                                105
Arg Pro Gly Gln Thr Gly Ser Gln Ala Gln Gly Ala Ala Ala Asn Val
                            120
                                                125
Ala Thr Leu Val Pro Gly Pro His Arg Trp Arg Asn Gly Tyr Arg Arg
                                            140
    130
                        135
Leu Leu Ala Asp
145
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<210> 2463

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<211> 333
<212> DNA
<213> Homo sapiens
<400> 2463
cccagggggt aagccatgag cctgttgagc caagtggccc gggcgccgtt gagcgccaag
ttcggcctgc tgattattct gttatacgtc gcgctggcgc tgtgngcgcc gctgctggcg
120
cectatggcg aaacccaggt ggtgggtgaa ggcttcgcgc cgtggagcgg ccagtttttg
180
ctgggcaccg ataacctggg gcgcgacatg ttcagccgcc tgatgtacgg cgcgcgcaat
accttgggca ttgccttcct gacgacgacg ctggcgtttc tgctcggtgg tttgagcggt
ttggtcgcgg cgatcaaggg cggttgggtc gac
333
<210> 2464
<211> 106
<212> PRT
<213> Homo sapiens
<400> 2464
Met Ser Leu Leu Ser Gln Val Ala Arg Ala Pro Leu Ser Ala Lys Phe
Gly Leu Leu Ile Ile Leu Leu Tyr Val Ala Leu Ala Leu Xaa Ala Pro
                                25
            20
Leu Leu Ala Pro Tyr Gly Glu Thr Gln Val Val Gly Glu Gly Phe Ala
                            40
Pro Trp Ser Gly Gln Phe Leu Leu Gly Thr Asp Asn Leu Gly Arg Asp
                                             60
                        55
Met Phe Ser Arg Leu Met Tyr Gly Ala Arg Asn Thr Leu Gly Ile Ala
                    70
                                        75
Phe Leu Thr Thr Thr Leu Ala Phe Leu Leu Gly Gly Leu Ser Gly Leu
Val Ala Ala Ile Lys Gly Gly Trp Val Asp
            100
                                105
<210> 2465
<211> 434
<212> DNA
<213> Homo sapiens
<400> 2465
nntcatgagg acatttccct catatttggt ggtggtaaat ccctcctggg acacggggaa
atgaccagag gctggcggcc cacctggcag gaacagatgc cagctctgct gcagccatcg
ccccttgagc gggtggctct gtgcctcttt ctgcactgct ggtgggtggt gctgttggct
gggtgatgga taccggctgc cagagatggc tcaggtgcca gctgctgggc tatctcaggc
240
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```
actggctgct gggctatctc gggtgccggc tgctgggcta tctcaggcgc tggctgctgc
300
tgggctgtct cgggtgctgg ctgttgggac gtctcctgtc ctggcactgg gctctcgggt
gctgggtgcc agctgctgcc taccttgcac tgggctctgg gcactcactg cactcgggct
tttccatctc cgac
434
<210> 2466
<211> 82
<212> PRT
<213> Homo sapiens
<400> 2466
Trp Ile Pro Ala Ala Arg Asp Gly Ser Gly Ala Ser Cys Trp Ala Ile
                 5
                                     10
Ser Gly Thr Gly Cys Trp Ala Ile Ser Gly Ala Gly Cys Trp Ala Ile
            20
                                25
Ser Gly Ala Gly Cys Cys Trp Ala Val Ser Gly Ala Gly Cys Trp Asp
                                                 45
        35
                            40
Val Ser Cys Pro Gly Thr Gly Leu Ser Gly Ala Gly Cys Gln Leu Leu
                        55
Pro Thr Leu His Trp Ala Leu Gly Thr His Cys Thr Arg Ala Phe Pro
                                        75
                    70
Ser Pro
<210> 2467
<211> 306
<212> DNA
<213> Homo sapiens
<400> 2467
atggactcca coggcacogg agcagggggt aagggggaaga agggagcggc cgggcgcaag
gtcggcgggc caaggaagaa gtcggtgtcg aggtccgtga aggccggtct ccagttcccc
gteggeegea tegggegeta ettgaagaag ggeegetaeg egeagegtgt eggeacegge
geocecqtct accteqeege tgteetegaa taeetegeeg etgaggttet ggagetegee
ggtaatgctg ccagggacaa caagaagact cgcattattc cgcgccacgt gcttctggcg
300
atccgg .
306
<210> 2468
<211> 102
<212> PRT
<213> Homo sapiens
<400> 2468
Met Asp Ser Thr Gly Thr Gly Ala Gly Gly Lys Gly Lys Lys Gly Ala
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10
Ala Gly Arg Lys Val Gly Gly Pro Arg Lys Lys Ser Val Ser Arg Ser
Val Lys Ala Gly Leu Gln Phe Pro Val Gly Arg Ile Gly Arg Tyr Leu
                            40
Lys Lys Gly Arg Tyr Ala Gln Arg Val Gly Thr Gly Ala Pro Val Tyr
                                            60
Leu Ala Ala Val Leu Glu Tyr Leu Ala Ala Glu Val Leu Glu Leu Ala
                    70
                                        75
Gly Asn Ala Ala Arg Asp Asn Lys Lys Thr Arg Ile Ile Pro Arg His
Val Leu Leu Ala Ile Arg
            100
<210> 2469
<211> 489
<212> DNA
<213> Homo sapiens
<400> 2469
gccggcgtgg cacatggctt ccctgaagcc agcattgccc tggccaagga agctttgcag
aacagatgag atttcagctg ggacttgcag ccaagtggga tttggccttt tggggagaag
ggaaagggca ttcaaaggcc agggacagag tatggtcaaa ggcatggaga tgaggaagag
gggaccagag cagagggtca ggttggaaag cgagttgggg tcaatctgca aaggggctga
cgtgccaggt aaaaaacagg agcacagttt agttttgtcg gatcatttca ggtggaaggg
cagtgggaat gttggagaaa acactttttg gtgtcgttac attgaatctg ctcatctata
agaataaaac tttattcat agagttattg tatggctcaa aataggtatg aagaattaag
aaaaaqaatt ttaqatttaa aatgaaaagg cacctacaaa agtagagtgg tagagttacc
aacgtggag
489
<210> 2470
<211> 115
<212> PRT
<213> Homo sapiens
<400> 2470
Met Ala Ser Leu Lys Pro Ala Leu Pro Trp Pro Arg Lys Leu Cys Arg
                                    10
Thr Asp Glu Ile Ser Ala Gly Thr Cys Ser Gln Val Gly Phe Gly Leu
                                25
Leu Gly Arg Arg Glu Arg Ala Phe Lys Gly Gln Gly Gln Ser Met Val
Lys Gly Met Glu Met Arg Lys Arg Gly Pro Glu Gln Arg Val Arg Leu
Glu Ser Glu Leu Gly Ser Ile Cys Lys Gly Ala Asp Val Pro Gly Lys
```

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65
                                         75
                     70
                                                              80
Lys Gln Glu His Ser Leu Val Leu Ser Asp His Phe Arg Trp Lys Gly
                                     90
 Ser Gly Asn Val Gly Glu Asn Thr Phe Trp Cys Arg Tyr Ile Glu Ser
             100
                                 105
Ala His Leu
         115
 <210> 2471
 <211> 779
 <212> DNA
<213> Homo sapiens
<400> 2471
tggccatcct ccgtgacatg tacacttcca atatgccggt gtttgagccg ttcatagatc
ctcacatggt ggcccttgac ttctttcaca gtgaggacct ctgcttcatg aggctcataa
gaagaggagc taaggactat tttgtcatgg gggcgccaat ccactgcatc ttctactata
attototoat ttootgaggo aatatoagot ocaagatgtg tooaggagtt ottaggataa
gcactgtaaa gatgaacttt cccataaacc ccaattgttc ctgggtcaat atgaattcca
300
ttcatacggt cacaaaagac tccctctgag gctctaagga gaatcagaag cttttgttcc
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gccacactca gaacattgct totgtccaca gggaagtota aggtccccat cacatacagc
cctttgaaga attggaaaat ctgtatccac aaggacagtt ctgttgggta aaatgagaac
gtcatcccca gggcctggaa tggtattgtt gtatcctccc cagccttctt caacaccttg
ccatgtttca gggagggacc attttaaagc tgattcaggg gcagaggtag aagctgaaat
agttggggc atacetteet teacceggag aatgaettga aettggeett cacetaaaac
cagataggtg agttgcctca gctggctatt gaagaaccag tcacagcctt ggttctggc
779
<210> 2472
<211> 181
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<213> Homo sapiens
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Met Thr Phe Ser Phe Tyr Pro Thr Glu Leu Ser Leu Trp Ile Gln Ile
Phe Gln Phe Phe Lys Gly Leu Tyr Val Met Gly Thr Leu Asp Phe Pro
                                25
            20
Val Asp Arg Ser Asn Val Leu Ser Val Ala Cys Met Val Ile Ala Gly
                            40
Gly Glu Leu Lys Val Gly Thr Leu Glu Asn Pro Leu Glu Lys Glu Gln
```

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60
    50
Lys Leu Leu Ile Leu Leu Arg Ala Ser Glu Gly Val Phe Cys Asp Arg
                    70
Met Asn Gly Ile His Ile Asp Pro Gly Thr Ile Gly Val Tyr Gly Lys
                                    90
                85
Val His Leu Tyr Ser Ala Tyr Pro Lys Asn Ser Trp Thr His Leu Gly
                                105
            100
Ala Asp Ile Ala Ser Gly Asn Glu Arg Ile Ile Val Glu Asp Ala Val
                                                 125
                            120
        115
Asp Trp Arg Pro His Asp Lys Ile Val Leu Ser Ser Ser Tyr Glu
                                            140
                        135
    130
Pro His Glu Ala Glu Val Leu Thr Val Lys Glu Val Lys Gly His His
                                         155
145
Val Arg Ile Tyr Glu Arg Leu Lys His Arg His Ile Gly Ser Val His
                165
Val Thr Glu Asp Gly
            180
<210> 2473
<211> 698
<212> DNA
<213> Homo sapiens
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gagetgagee teactettte eggggtgetg etgegggagg geegtgeeae ggaegatgae
420
atgcagagtc tcgcaagcct catgagtgtg aagcctagtg atgtgggcaa cttggatgac
480
tttgctgaga gtgatgaaga tgaggctcat ggcccaggag ccccggaggc ccgggctcga
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ggagggttac ccgggccacc agccacttgc tgtgcccgcc ctgtgatggg aactcattac
tgcccaggca gtcccaacca acccagcagc ctcaattg
698
<210> 2474
<211> 232
<212> PRT
<213> Homo sapiens
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<400> 2474

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Arg Arg Asn Arg Arg Ile Cys Ser Lys Ala His Ser Trp Gln Pro Xaa
                                25
Ala Ser Arg Thr His Thr Gly Ala Pro Trp Cys Gly Trp Tyr Xaa Glu
Asn Val Asp Ile Ser Val Thr Leu Tyr Arg Asp Pro His Val Asp Gln
Tyr Glu Ala Lys Glu Trp Thr Phe Ile Ile Glu Asn Glu Ser Lys Gly
                    70
Gln Arg Lys Val Leu Ala Thr Ala Glu Val Asp Leu Ala Arg His Ala
                85
                                    90
Arg Ala Arg Ala Xaa Ser Lys Ser Xaa Leu Arg Leu Arg Leu Lys Pro
            100
                                105
Lys Ser Val Lys Thr Val Gln Ala Glu Leu Ser Leu Thr Leu Ser Gly
                            120
Val Leu Leu Arg Glu Gly Arg Ala Thr Asp Asp Asp Met Gln Ser Leu
                                            140
                        135
Ala Ser Leu Met Ser Val Lys Pro Ser Asp Val Gly Asn Leu Asp Asp
                    150
                                        155
Phe Ala Glu Ser Asp Glu Asp Glu Ala His Gly Pro Gly Ala Pro Glu
Ala Arg Ala Arg Val Pro Gln Pro Gly Gly Leu Thr Ala Cys Cys Gly
                                185
            180
Ser Arg Leu Pro Arg Pro Gly Glu Gly Gly Leu Pro Gly Pro Pro Ala
                                                 205
                            200
        195
Thr Cys Cys Ala Arg Pro Val Met Gly Thr His Tyr Cys Pro Gly Ser
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Pro Asn Gln Pro Ser Ser Leu Asn
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<211> 1251
<212> DNA
<213> Homo sapiens
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ggeteggeca egggetgece geceegetge gagtgeteeg eecaggaceg egetgtgetg
tgccaccgca agegetttgt ggcagtecec gagggcatec ccaccgagac gegeetgetg
gacctaggca agaaccgcat caaaacgctc aaccaggacg agttcgccag cttcccgcac
ctggaggagc tggagctcaa cgagaacatc gtgagcgccg tggagcccgg cgccttcaac
aacctcttca acctccggac gctgggtctc cgcagcaacc gcctgaagct catcccgcta
ggcgtcttca ctggcctcag caacctgacc aagctggaca tcagcgagaa caagatcgtt
480
```

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atcctactgg actacatgtt tcaggacctg tacaacctca agtcactgga ggttggcgac
aatgacctcg totacatoto toaccgogoo ttcagoggoo tcaacagoot ggagcagotg
600
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aggetgtace gacteaaggt ettggagate teccaetgge ectaettgga caccatgaca
cccaactgcc totacggcct caacctgacg tccctgtcca tcacacactg caatctgacc
gctgtgccct acctggccgt ccgccaccta gtctatctcc gcttcctcaa cctctcctac
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cagetggtgg gegggeaget ggeegggtgg agecetgeet teegeggeet caactacetg
cgcgtgctca atgtctctgg caaccagctg accacactgg aggaatcagt cttccactcg
gtgggcaacc tggagacact catcctggac tccaacccgc tggcctgcga ctgtcggctc
ctgtgggtgt teeggegeeg tggeetacaa aetteaaceg geageageee aegtgegeea
cgcccgagtt tgtccagggg caaggagttc aaggacttcc ctgatgtgct a
1251
<210> 2476
<211> 417
<212> PRT
<213> Homo sapiens
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Xaa Ala Pro Glu Met Gln Val Ser Lys Arg Met Leu Ala Gly Gly Val
                                    10
Arg Ser Met Pro Ser Pro Leu Leu Ala Cys Trp Gln Pro Ile Leu Leu
Leu Val Leu Gly Ser Val Leu Ser Gly Ser Ala Thr Gly Cys Pro Pro
Arg Cys Glu Cys Ser Ala Gln Asp Arg Ala Val Leu Cys His Arg Lys
                                            60
Arg Phe Val Ala Val Pro Glu Gly Ile Pro Thr Glu Thr Arg Leu Leu
                                        75
Asp Leu Gly Lys Asn Arg Ile Lys Thr Leu Asn Gln Asp Glu Phe Ala
Ser Phe Pro His Leu Glu Glu Leu Glu Leu Asn Glu Asn Ile Val Ser
                                105
Ala Val Glu Pro Gly Ala Phe Asn Asn Leu Phe Asn Leu Arg Thr Leu
                                                125
                            120
Gly Leu Arg Ser Asn Arg Leu Lys Leu Ile Pro Leu Gly Val Phe Thr
                        135
Gly Leu Ser Asn Leu Thr Lys Leu Asp Ile Ser Glu Asn Lys Ile Val
                                        155
                    150
Ile Leu Leu Asp Tyr Met Phe Gln Asp Leu Tyr Asn Leu Lys Ser Leu
```

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170
                165
Glu Val Gly Asp Asn Asp Leu Val Tyr Ile Ser His Arg Ala Phe Ser
                                185
            180
Gly Leu Asn Ser Leu Glu Gln Leu Thr Leu Glu Lys Cys Asn Leu Thr
                            200
                                                205
Ser Ile Pro Thr Glu Ala Leu Ser His Leu His Gly Leu Ile Val Leu
                        215
                                            220
Arg Leu Arg His Leu Asn Ile Asn Ala Ile Arg Asp Tyr Ser Phe Lys
                    230
                                        235
Arg Leu Tyr Arg Leu Lys Val Leu Glu Ile Ser His Trp Pro Tyr Leu
                                    250
                245
Asp Thr Met Thr Pro Asn Cys Leu Tyr Gly Leu Asn Leu Thr Ser Leu
                                                    270
                                265
Ser Ile Thr His Cys Asn Leu Thr Ala Val Pro Tyr Leu Ala Val Arg
        275
                            280
His Leu Val Tyr Leu Arg Phe Leu Asn Leu Ser Tyr Asn Pro Ile Ser
                                            300
                        295
Thr Ile Glu Gly Ser Met Leu His Glu Leu Leu Arg Leu Gln Glu Ile
                                        315
Gln Leu Val Gly Gly Gln Leu Ala Gly Trp Ser Pro Ala Phe Arg Gly
                325
                                    330
Leu Asn Tyr Leu Arg Val Leu Asn Val Ser Gly Asn Gln Leu Thr Thr
                                345
            340
Leu Glu Glu Ser Val Phe His Ser Val Gly Asn Leu Glu Thr Leu Ile
                            360
Leu Asp Ser Asn Pro Leu Ala Cys Asp Cys Arg Leu Leu Trp Val Phe
Arg Arg Arg Gly Leu Gln Thr Ser Thr Gly Ser Ser Pro Arg Ala Pro
                    390
                                        395
Arg Pro Ser Leu Ser Arg Gly Lys Glu Phe Lys Asp Phe Pro Asp Val
Leu
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<210> 2477

<211> 548

<212> DNA

<213> Homo sapiens

<400> 2477

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aagtgtgagg agttcccgtc cagcctgtca tcagtctccc caggtcttga agcggcggcc

ctgctcctgg ccgtgaccat ggaccctctg gagaccccta tcaaggatgg catcctctac

cagcagcatg tcaagtttgg caagaagtgc tggcggaagg tgtgggctct gctgtatgca

ggaggcccat caggcgtggc acggctggag aactgggagg tccgggatgg tggcctggga

gcagegggtg acaggtcggc ggggcctggc cggcgagggg agcgacgggt catecgcctg

```
getgaetgtg tgteegtget geeggetgae ggegagaget geeceeggga caeeggtgee
tteetgetea ecaccacega gegaageeat etactggetg eteageaceg ecaggeetgg
atgggccc
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<210> 2478<211> 113
<212> PRT
<213> Homo sapiens
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1
Phe Gly Lys Lys Cys Trp Arg Lys Val Trp Ala Leu Leu Tyr Ala Gly
                                25
            20
Gly Pro Ser Gly Val Ala Arg Leu Glu Asn Trp Glu Val Arg Asp Gly
                            40
Gly Leu Gly Ala Ala Gly Asp Arg Ser Ala Gly Pro Gly Arg Arg Gly
                                            60
                        55
Glu Arg Arg Val Ile Arg Leu Ala Asp Cys Val Ser Val Leu Pro Ala
                                        75
Asp Gly Glu Ser Cys Pro Arg Asp Thr Gly Ala Phe Leu Leu Thr Thr
                                    90
                85
Thr Glu Arg Ser His Leu Leu Ala Ala Gln His Arg Gln Ala Trp Met
            100
                                105
Gly
<210> 2479
<211> 324
<212> DNA
<213> Homo sapiens
<400> 2479
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ttcggcacga gctggatgga ggagaccgca ggcaccttct cactgaactg gtatcgcagc
120
aggtactgga atgacaatga agcagcagaa aggcttgcgt tgatgtgggc taaaaccttc
aaatatgcgt cgataaacgt ctcctggcag accgggatta gcaatagcga cgacgagggc
240
aatgaagatg aagacatgtt ctacgccggt atctccattc cgctgggagg cggggcgtac
tctaactcct ggtatcgtga atat
324
<210> 2480
<211> 108
<212> PRT
<213> Homo sapiens
<400> 2480
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Glu Phe Met Glu Val Tyr Glu Glu Asp Glu Glu Tyr Ala Tyr Glu Lys
Tyr Glu Thr His Phe Gly Thr Ser Trp Met Glu Glu Thr Ala Gly Thr
                                 25
Phe Ser Leu Asn Trp Tyr Arg Ser Arg Tyr Trp Asn Asp Asn Glu Ala
                             40
Ala Glu Arg Leu Ala Leu Met Trp Ala Lys Thr Phe Lys Tyr Ala Ser
Ile Asn Val Ser Trp Gln Thr Gly Ile Ser Asn Ser Asp Asp Glu Gly
                     70
Asn Glu Asp Glu Asp Met Phe Tyr Ala Gly Ile Ser Ile Pro Leu Gly
Gly Gly Ala Tyr Ser Asn Ser Trp Tyr Arg Glu Tyr
            100
<210> 2481
<211> 484
<212> DNA
<213> Homo sapiens
<400> 2481
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agecetaaag geaagegtat tgaagetegt tteeetgate caacegetaa eecataceta
gcattttcag ctatgttgat ggctggtatc gatggtatca aaaacaagat tcaccctggc
240
gatgcagcag acaaagattt gtacgacctt ccagctgaag aagcagccgc tatccctcaa
300
gttgctagca gcttagaaga agcgcttaag tgcctagatc aagaccgtga gttcttgact
caaggtggcg ttttctctga cgacatgatc gatgcttaca tcgctcttaa agcagaagaa
gcacagcgtg ttgcaatgac aacaacacca cttgagttcg aactttacta cagcctataa
480
gctt
484
<210> 2482
<211> 159
<212> PRT
<213> Homo sapiens
<400> 2482
Ala Phe Thr Asn Ala Ser Thr Asn Ser Tyr Lys Arg Leu Val Pro Gly
                                    10
Phe Glu Ala Pro Val Met Leu Ala Tyr Ser Ala Arg Asn Arg Ser Ala
                                25
Ser Ile Arg Ile Pro Tyr Val Ala Ser Pro Lys Gly Lys Arg Ile Glu
Ala Arg Phe Pro Asp Pro Thr Ala Asn Pro Tyr Leu Ala Phe Ser Ala
```

```
Met Leu Met Ala Gly Ile Asp Gly Ile Lys Asn Lys Ile His Pro Gly
                    70
Asp Ala Ala Asp Lys Asp Leu Tyr Asp Leu Pro Ala Glu Glu Ala Ala
                                    90
Ala Ile Pro Gln Val Ala Ser Ser Leu Glu Glu Ala Leu Lys Cys Leu
                                105
                                                    110
            100
Asp Gln Asp Arg Glu Phe Leu Thr Gln Gly Gly Val Phe Ser Asp Asp
                            120
Met Ile Asp Ala Tyr Ile Ala Leu Lys Ala Glu Glu Ala Gln Arg Val
                                            140
                        135
Ala Met Thr Thr Pro Leu Glu Phe Glu Leu Tyr Tyr Ser Leu
                                        155
                    150
<210> 2483
<211> 477
<212> DNA
<213> Homo sapiens
<400> 2483
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cgtccccagc cgcttcctcc tggccttgtt cccccttccc tgtgaaggag agaacagttt
cggctggccc tgagatgctg gcaggcctgc agtcagggca gtgggcgcct cccaccttga
aatggtcctt cgtggtgcag ttctgcttac ggggtagact ttgttgcctt ccacagagga
cagttagggt gggcaggaag gaagtetetg ceacaagtet geattecagg etgtttecag
aagtgggaat tetetegtge eetggagtet gggaatgeat tittagtite eeagetteag
gtagaattga aattgagtga gccaacccac cacatccatc tggagccagg aactagt
477
<210> 2484
<211> 130
<212> PRT
<213> Homo sapiens
<400> 2484
Met His Ser Gln Thr Pro Gly His Glu Arg Ile Pro Thr Ser Gly Asn
                                    10
                 ,5
Ser Leu Glu Cys Arg Leu Val Ala Glu Thr Ser Phe Leu Pro Thr Leu
                                25
Thr Val Leu Cys Gly Arg Gln Gln Ser Leu Pro Arg Lys Gln Asn Cys
                            40
Thr Thr Lys Asp His Phe Lys Val Gly Gly Ala His Cys Pro Asp Cys
Arg Pro Ala Ser Ile Ser Gly Pro Ala Glu Thr Val Leu Ser Phe Thr
Gly Lys Gly Glu Gln Gly Gln Glu Glu Ala Ala Gly Asp Ala Gly Asp
                                    90
```

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Gly Val Ala Asp Arg Gly Ser Glu Val Ser Ser Glu Ala Ala Cys Ser
                                 105
Pro Glu Gly Pro Gln Ala Arg Val Arg Arg Glu Arg Glu Glu Pro Arg
                             120
Phe Gly
    130
<210> 2485
<211> 608
<212> DNA
<213> Homo sapiens
<400> 2485
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aagacccgcg actgcaacga ggtgctcttt gtcgatgcag ttgaacatcg ctggatcgag
gagetgggtg gtatgaactt catggccatc agcaaagaeg gtcagetegt caccecegag
ctagetggca ccatcetgeg tggcgtgacc cgcaagtcca ttetggaagt tgccccgac
ctcggtcttg aaccagtgga gcgcaagatc gatgttgacg agctccttga tggcgttcgc
totggcgagt toccggaagt ottcgcotgt ggtaccgccg cggttgtcac accgatcggc
360
tettteetag atggagatae egaegtgaag gtetetgage ecaeeggaaa gaecaegatg
gagateegte geegtetget ggatateeag tteggaegeg etgaggaeae ecatggetgg
480
ttgaagcgag tctgctgacg gcgtcgacga ccattggggc cggccccaat gatgtgttca
cgatcgggct acgacggtgt cgatgacaat gtcttgcggc tggaaggttt gcccgacggt
600
gaacgcgt
608
<210> 2486
<211> 165
<212> PRT
<213> Homo sapiens
<400> 2486
Thr Gly Glu Ala Lys Cys Gly Gly Asn Tyr Ala Ala Ser Leu Arg Ser
Gln Ile Asp Ala Lys Thr Arg Asp Cys Asn Glu Val Leu Phe Val Asp
            20
                                25
Ala Val Glu His Arg Trp Ile Glu Glu Leu Gly Gly Met Asn Phe Met
                            40
Ala Ile Ser Lys Asp Gly Gln Leu Val Thr Pro Glu Leu Ala Gly Thr
                        55
                                            60
Ile Leu Arg Gly Val Thr Arg Lys Ser Ile Leu Glu Val Ala Pro Asp
                                        75
                    70
Leu Gly Leu Glu Pro Val Glu Arg Lys Ile Asp Val Asp Glu Leu Leu
                                    90
```

```
Asp Gly Val Arg Ser Gly Glu Phe Pro Glu Val Phe Ala Cys Gly Thr
                                105
Ala Ala Val Val Thr Pro Ile Gly Ser Phe Leu Asp Gly Asp Thr Asp
                            120
                                                125
        115
Val Lys Val Ser Glu Pro Thr Gly Lys Thr Thr Met Glu Ile Arg Arg
                        135
Arg Leu Leu Asp Ile Gln Phe Gly Arg Ala Glu Asp Thr His Gly Trp
                                        155
Leu Lys Arg Val Cys
                165
<210> 2487
<211> 339
<212> DNA
<213> Homo sapiens
<400> 2487
nncccctcag gagagcagcc catggaaggt ccccccaag gggcccctga gagccctgac
aqtctqcaaa qaaaccaqaa agagctccag ggcctcctga cccaggtgca agccctggag
aaggaggccg caagcagtgt ggacgtgcag gccctgcgga ggctctttga ggccgtgccc
cagetgggag gggctgctcc teaggetect getgeecace aaaageeega ggeeteagtg
gagcaggcct ttggggagct gacacgggtc agcacggaag ttgctcaact gaaggaacag
accttggtaa ggctgctgga cattgaagag gctgtgcac
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<211> 113
<212> PRT
<213> Homo sapiens
<400> 2488
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                                                        15
                 5
                                    10
1
Glu Ser Pro Asp Ser Leu Gln Arg Asn Gln Lys Glu Leu Gln Gly Leu
Leu Thr Gln Val Gln Ala Leu Glu Lys Glu Ala Ala Ser Ser Val Asp
                            40
Val Gln Ala Leu Arg Arg Leu Phe Glu Ala Val Pro Gln Leu Gly Gly
                        55
Ala Ala Pro Gln Ala Pro Ala Ala His Gln Lys Pro Glu Ala Ser Val
                    70
Glu Gln Ala Phe Gly Glu Leu Thr Arg Val Ser Thr Glu Val Ala Gln
                                    90
Leu Lys Glu Gln Thr Leu Val Arg Leu Leu Asp Ile Glu Glu Ala Val
           100
                                105
His
```

<210> 2489

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<211> 594
<212> DNA
<213> Homo sapiens
<400> 2489
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aactggctgg tcaccatcta tcacggccgg gtgcgtatca ccagccaggt tctttggacc
ctqqqcttca tqqtqacctt cgcqatcqqa qqcatqaccq gcqtactqct ggccatcccq
ggtgctgact tcgtactgca caacagcctg ttcggaattg ctcacttcca caacgtgatc
ateggeggeg cagtattegg ctacategea ggttteaget tetaetteec gaaagegtte
ggcttcaage tgcacgaaag ctggggcaag gctgcattct ggttctggat ctcgggcttc
ttegtegegt teatgeeget etatgeactg ggttteatgg geatgaceeg ttgtttgaae
geoccecca eccetgagtg ggtecegtae etgtaegttg ceatggtegg tgeactgatg
ategetgteg gtategeetg ceagttgatt cagetgtatg teagegtgeg tgategeaag
cagaacatgt gcgaatccgg cgacccatgg aatgcacaca ccctggaatg gtcg
594
<210> 2490
<211> 198
<212> PRT
<213> Homo sapiens
<400> 2490
'Xaa Ala Phe Phe Gly Leu Ala Thr Met Leu Ile Ser Ile Pro Thr Gly
Val Lys Leu Phe Asn Trp Leu Val Thr Ile Tyr His Gly Arg Val Arg
                                25
Ile Thr Ser Gln Val Leu Trp Thr Leu Gly Phe Met Val Thr Phe Ala
                             40
Ile Gly Gly Met Thr Gly Val Leu Leu Ala Ile Pro Gly Ala Asp Phe
Val Leu His Asn Ser Leu Phe Gly Ile Ala His Phe His Asn Val Ile
                    70
Ile Gly Gly Ala Val Phe Gly Tyr Ile Ala Gly Phe Ser Phe Tyr Phe
                                    90
                85
Pro Lys Ala Phe Gly Phe Lys Leu His Glu Ser Trp Gly Lys Ala Ala
                                105
                                                    110
Phe Trp Phe Trp Ile Ser Gly Phe Phe Val Ala Phe Met Pro Leu Tyr
                            120
Ala Leu Gly Phe Met Gly Met Thr Arg Cys Leu Asn Ala Pro Pro Thr
                        135
                                            140
Pro Glu Trp Val Pro Tyr Leu Tyr Val Ala Met Val Gly Ala Leu Met
                                        155
                    150
Ile Ala Val Gly Ile Ala Cys Gln Leu Ile Gln Leu Tyr Val Ser Val
                                    170
```

```
Arg Asp Arg Lys Gln Asn Met Cys Glu Ser Gly Asp Pro Trp Asn Ala
                                185
            180
His Thr Leu Glu Trp Ser
        195
<210> 2491
<211> 592
<212> DNA
<213> Homo sapiens
<400> 2491
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actacgttgt tgcctggtct attccatgca gtaacgacga atatgtcgcg atctcaggat
gatettgcag tgttcgaaag cggaactgta ttccgcgccg tcactccggc tgcggcaccg
cgtcccggtg tcgacgagcg cccctccgat gaagtccttg ccgagatcga cgccgccttg
ccageccage egegeatget egeggeegtg atetgtggea getggetgee egategetgg
gatggagagt cggtcaaggc tgactggcga cacgctgtgc tggtcgccca gaaggctgct
gatgetettg gegtgagget ggtgegeaag getgaeegte aggeteeatg geateeeggt
cgttgtgcgg ctctcatcgt cgatgggaag gtcattggcc atgctggtga gttgcacccc
acagtagtgt cgaaggctgg tctgcctcag cgcacctgtg cggtcgagtt caatctagat
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592
<210> 2492
<211> 197
<212> PRT
<213> Homo sapiens
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Thr Arg His Ala Thr Val Lys Leu Ala Asn Pro Leu Asp Asp Thr Arg
                                                         15
1
Pro Tyr Leu Arg Thr Thr Leu Leu Pro Gly Leu Phe His Ala Val Thr
                                25
Thr Asn Met Ser Arg Ser Gln Asp Asp Leu Ala Val Phe Glu Ser Gly
                            40
Thr Val Phe Arg Ala Val Thr Pro Ala Ala Ala Pro Arg Pro Gly Val
Asp Glu Arg Pro Ser Asp Glu Val Leu Ala Glu Ile Asp Ala Ala Leu
                                        75
                    70
Pro Ala Gln Pro Arg Met Leu Ala Ala Val Ile Cys Gly Ser Trp Leu
Pro Asp Arg Trp Asp Gly Glu Ser Val Lys Ala Asp Trp Arg His Ala
                                105
                                                    110
            100
Val Leu Val Ala Gln Lys Ala Ala Asp Ala Leu Gly Val Arg Leu Val
                            120
                                                125
        115
```

```
Arg Lys Ala Asp Arg Gln Ala Pro Trp His Pro Gly Arg Cys Ala Ala
                         135
Leu Ile Val Asp Gly Lys Val Ile Gly His Ala Gly Glu Leu His Pro
                     150
                                         155
Thr Val Val Ser Lys Ala Gly Leu Pro Gln Arg Thr Cys Ala Val Glu
                                     170
Phe Asn Leu Asp Ala Leu Val Ala Cys Ala Pro Ser Gly Gly Val
            180
                                 185
Met Val Ile Ser Arg
        195
<210> 2493
<211> 418
<212> DNA
<213> Homo sapiens
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120
ctategaact accteatget egaaceteat teggteatea agaceatega etetteeeta
cctacgggat ctatcaatgt ctccctggct gaggaagccc aaaagtacgg cgcacaagtg
atcccgctgg ttgaaaatgc caacctagac accgtgtggc tggggttgcg cgtcattggc
aagggegeca ggeggggage egacegetet teeteggtet acetecaget gaegteggtg
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Ser Gly Ala Asp Pro His Thr Tyr Glu Pro Ser Leu Arg Asp Val Arg
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Thr Val Val Tyr Ser Arg Val Ala Leu Ser Asn Tyr Leu Met Leu Glu
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Pro His Ser Val Ile Lys Thr Ile Asp Ser Ser Leu Pro Thr Gly Ser
Ile Asn Val Ser Leu Ala Glu Glu Ala Gln Lys Tyr Gly Ala Gln Val
                                        75
                    70
Ile Pro Leu Val Glu Asn Ala Asn Leu Asp Thr Val Trp Leu Gly Leu
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Arg Val Ile Gly Lys Gly Ala Arg Arg Gly Ala Asp Arg Ser Ser Ser
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Val Tyr Leu Gln Leu Thr Ser Val Glu Gly Pro Gly Asp Phe Thr Ala
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Tyr Ile Thr Gly Thr Phe Gly Arg Pro Gln Ile
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eggecagtge etactgeest etettgeege eegeacetge ageceegeac etgeegettg
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tacageetta aegaggeta egecaaggae tttgaceetg eegteactga gtacateeag
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1320
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cctagagagc agaaataaaa agcatgacta tttccaccat caaatgctgt agaatgcttg
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 Phe Val Met Glu Glu Gly Arg Lys Ala Arg Gly Thr Gly Glu Leu Thr
 Gln Leu Leu Asn Ser Leu Cys Thr Ala Val Lys Ala Ile Ser Ser Ala
                                                 45
 Val Arg Lys Ala Gly Ile Ala His Leu Tyr Gly Ile Ala Gly Ser Thr
                         55
 Asn Val Thr Gly Asp Gln Val Lys Lys Leu Asp Val Leu Ser Asn Asp
 Leu Val Met Asn Met Leu Lys Ser Ser Phe Ala Thr Cys Val Leu Val
 Ser Glu Glu Asp Lys His Ala Ile Ile Val Glu Pro Glu Lys Arg Gly
             100
                                 105
Lys Tyr Val Val Cys Phe Asp Pro Leu Asp Gly Ser Ser Asn Ile Asp
                            120
Cys Leu Val Ser Val Gly Thr Ile Phe Gly Ile Tyr Arg Lys Lys Ser
                        135
Thr Asp Glu Pro Ser Glu Lys Asp Ala Leu Gln Pro Gly Arg Asn Leu
                    150
                                        155
Val Ala Ala Gly Tyr Ala Leu Tyr Gly Ser Ala Thr Met Leu Val Leu
                                    170
                165
Ala Met Asp Cys Gly Val Asn Cys Phe Met Leu Asp Pro Ala Ile Gly .
                                185
Glu Phe Ile Leu Val Asp Lys Asp Val Lys Ile Lys Lys Lys Gly Lys
                            200
Ile Tyr Ser Leu Asn Glu Gly Tyr Ala Lys Asp Phe Asp Pro Ala Val
                                            220
                        215
Thr Glu Tyr Ile Gln Arg Lys Lys Phe Pro Pro Asp Asn Ser Ala Pro
                                        235
                    230
Tyr Gly Ala Arg Tyr Val Gly Ser Met Val Ala Asp Val His Arg Thr
                                    250
                245
Leu Val Tyr Gly Gly Ile Phe Leu Tyr Pro Ala Asn Lys Lys Ser Pro
                                265
Asn Gly Lys Leu Arg Leu Leu Tyr Glu Cys Asn Pro Met Ala Tyr Val
                            280
Met Glu Lys Ala Gly Gly Met Ala Thr Thr Gly Lys Glu Ala Val Leu
                                                                  290
                    300
Asp Val Ile Pro Thr Asp Ile His Gln Arg Ala Pro Val Ile Leu Gly
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Ser Pro Asp Asp Val Leu Glu Phe Leu Lys Val Tyr Glu Lys His Ser
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335 330 325 Ala Gln <210> 2497 <211> 399 <212> DNA <213> Homo sapiens <400> 2497 acgegtgtet tggeeggtga aaccetteee geageaggtt cagtaegteg caeeggegag cttggctacc tgccacagga tccccgcgac ccagacatgg aaatgatcgc gagggcaagg atcctgtcag cgcgtggcct ggaccacata ctggaacgga tgcgcaccct ggagtatcag atggcgaacg gttccgagga cgaccgtgcc gttgcgatgg acaaatacgc gaaggctgaa gaccgtctcg tcgcggccgg tggctatggc gcctctgcag aggcagcccg aatcgcgtcg aacttggggc ttgacgaccg cgtcctttcc cagccgttga aaaacctctc gggtggtcag cgtcgtcgcg tcgagctggc gcgcatcctc ttttccgga 399 <210> 2498 <211> 133 <212> PRT <213> Homo sapiens <400> 2498 Thr Arg Val Leu Ala Gly Glu Thr Leu Pro Ala Ala Gly Ser Val Arg 10 Arg Thr Gly Glu Leu Gly Tyr Leu Pro Gln Asp Pro Arg Asp Pro Asp 25 Met Glu Met Ile Ala Arg Ala Arg Ile Leu Ser Ala Arg Gly Leu Asp His Ile Leu Glu Arg Met Arg Thr Leu Glu Tyr Gln Met Ala Asn Gly 55 Ser Glu Asp Asp Arg Ala Val Ala Met Asp Lys Tyr Ala Lys Ala Glu 75 70 Asp Arg Leu Val Ala Ala Gly Gly Tyr Gly Ala Ser Ala Glu Ala Ala 90 Arg Ile Ala Ser Asn Leu Gly Leu Asp Asp Arg Val Leu Ser Gln Pro 105 Leu Lys Asn Leu Ser Gly Gly Gln Arg Arg Arg Val Glu Leu Ala Arg 120 115 Ile Leu Phe Ser Gly 130 <210> 2499 <211> 348 <212> DNA <213> Homo sapiens

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gagaagatag egegttacaa tgagaagaag gttcaegege tgatgaaega tgeeggeate
240
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<210> 2500
<211> 116
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<213> Homo sapiens
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Xaa Pro Gly Glu Asp Pro Phe Tyr Met Ala Tyr His Asp Thr Glu Trp
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Gly Val Pro Glu Tyr Asp Asp Arg Ala Leu Tyr Glu Lys Leu Ile Leu
Asp Gly Phe Gln Ala Gly Leu Ser Trp Ile Thr Ile Leu Arg Lys Arg
Asp Asn Phe Arg Lys Ala Phe Asp Asp Phe Gln Pro Glu Lys Ile Ala
                        55
Arg Tyr Asn Glu Lys Lys Val His Ala Leu Met Asn Asp Ala Gly Ile
                    70
                                         75
                                                             80
Val Arg Asn Arg Ala Lys Ile Glu Gly Thr Ile Ala Ser Ala Lys Ala
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                                    90
Tyr Leu Asp Ile Met Glu Lys Gly Pro Gly Phe Ser Arg Leu Leu Trp
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Asp Phe Val Asp
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<212> DNA
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acttagcaca gggcctgacc tatagtaatg gtcaagaatg atagcggggg tgaggtatgg
ctttcaagag tcaaacaatt ttactggtgc atcatttcca tttattcttt ctcttttgca
taataaaacc actcttaaqa ttctaccttg gttagttaga gacaacagtt ctctggaaag
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tagattetat agetteaact eeetgaagag atgtgtgeta atttacatea aaaaaateet

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taagggtata aaatatgcca agaactgtca acatcacaga ttaccactgg tagcttctgg
420
tatattgtta agtttccact taatttttaa gggacactag agaattagta tgactcacct
acactaagtt tatatactgt atttaacagt gtaattttca aatatgacag gaataaccca
gatgtgaaat gctgaatcat taatcacag
569
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<211> 100
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Gly Ala Ser Phe Pro Phe Ile Leu Ser Leu Leu His Asn Lys Thr Thr
                                25
Leu Lys Ile Leu Pro Trp Leu Val Arg Asp Asn Ser Ser Leu Glu Ser
Arg Phe Tyr Ser Phe Asn Ser Leu Lys Arg Cys Val Leu Ile Tyr Ile
    50
                       55
Lys Lys Ile Leu Lys Gly Ile Lys Tyr Ala Lys Asn Cys Gln His His
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Arg Leu Pro Leu Val Ala Ser Gly Ile Leu Leu Ser Phe His Leu Ile
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Phe Lys Gly His
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<210> 2503
<211> 419
<212> DNA
<213> Homo sapiens
<400> 2503
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accaatgggg agegetttet ctacetgeeg ceaecteaet aegteggtee ecaeateeea
tegteettgg cateacecat gaggeteteg acacettegg cetececage catecegeet
ctcgtccatt gcgcagacaa aagcctcccg tggaagatgg gcgtcagccc tgggaatcct
gttgattccc acgcctatcc tcacatccag aacagtaagc agcccagggt tccctctgcc
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<210> 2504
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<211> 121
 <212> PRT
<213> Homo sapiens
<400> 2504
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Leu Tyr Ser Pro Val Cys Thr Asn Gly Glu Arg Phe Leu Tyr Leu Pro
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                                 25
Pro Pro His Tyr Val Gly Pro His Ile Pro Ser Ser Leu Ala Ser Pro
                             40
Met Arg Leu Ser Thr Pro Ser Ala Ser Pro Ala Ile Pro Pro Leu Val
                         55
His Cys Ala Asp Lys Ser Leu Pro Trp Lys Met Gly Val Ser Pro Gly
                    70
                                         75
Asn Pro Val Asp Ser His Ala Tyr Pro His Ile Gln Asn Ser Lys Gln
                                     90
Pro Arg Val Pro Ser Ala Lys Ala Val Thr Ser Gly Leu Pro Gly Asp
Thr Ala Leu Leu Leu Pro Pro Ser Arg
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<210> 2505
<211> 540
<212> DNA
<213> Homo sapiens
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acgaatgggc gtgtcatggc cgccatcgcg tggatcgtcg tggcagcagt ctcggctctc
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<210> 2506
<211> 72
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<213> Homo sapiens
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Ser Gly Ala Asn Pro Thr Gln Ala Leu Val Trp Ser Gln Val Leu Leu

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Ser Met Gly Leu Pro Leu Val Leu Val Pro Leu Ala Arg Phe Thr Gly
Asp Arg Arg Leu Met Gly Gln Trp Thr Asn Gly Arg Val Met Ala Ala
Ile Ala Trp Ile Val Val Ala Ala Val Ser Ala Leu Asn Val Val Leu
Val Val Glu Thr Val Met Gly Ala
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<211> 922
<212> DNA
<213> Homo sapiens
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acggagcagt geoccetgtt ttcacagcae aagtgegege agcaceggee gttcacetge
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<212> PRT
<213> Homo sapiens
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Pro Gly Cys Cys Arg Tyr Leu Lys Glu Phe Arg Thr Glu Gln Cys Pro
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Leu Phe Ser Gln His Lys Cys Ala Gln His Arg Pro Phe Thr Cys Phe
           20
                               25
His Trp His Phe Leu Asn Gln Arg Arg Arg Pro Leu Arg Arg Arg
                           40
Asp Gly Thr Phe Asn Tyr Ser Pro Asp Val Tyr Cys Ser Lys Tyr Asn
                       55
Glu Ala Thr Gly Val Cys Pro Asp Gly Asp Glu Cys Pro Tyr Leu His
                   70
                                       75
Arg Thr Thr Gly Asp Thr Glu Arg Lys Tyr His Leu Arg Tyr Tyr Lys
                                  90
Thr Gly Thr Cys Ile His Glu Thr Asp Ala Arg Gly His Cys Val Lys
                               105
Asn Gly Leu His Cys Ala Phe Ala His Gly Pro His Asp Leu Arg Ser
                           120
Pro Val Tyr Asp Ile Arg Glu Leu Gln Ala Met Glu Ala Leu Gln Asn
Gly Gln Thr Thr Val Glu Gly Ser Ile Glu Gly Gln Ser Ala Gly Ala
145
                   150
                                      155
Ala Ser His Ala Met Ile Glu Lys Ile Leu Ser Glu Glu Pro Arg Trp
               165
                                  170
Gln Glu Thr Ala Tyr Val Leu Gly Asn Tyr Lys Thr Glu Pro Cys Lys
                               185
Lys Pro Pro Arg Leu Cys Arg Gln Gly Tyr Ala Cys Pro Tyr Tyr His
                          200
Asn Ser Lys Asp Arg Arg Arg Ser Pro Arg Lys His Lys Tyr Arg Ser
                       215
Ser Pro Cys Pro Asn Val Lys His Gly Asp Glu Trp Gly Asp Pro Gly
                                      235
                   230
Lys Cys Glu Asn Gly Asp Ala Cys Gln Tyr Cys His Thr Arg Thr Glu
                                  250
Gln Gln Phe His Pro Glu Ile Tyr Lys Ser Thr Lys Cys Asn Gly Arg
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Gly Gly Gly Val Arg Glu
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<211> 348
<212> DNA
<213> Homo sapiens
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gttcatgaac gggtggagcc cggcaaaacc gaaactcaac caatccttgg ggatgctgga
cggcaggttg ccgagggcaa acacgttgac cacgttcgca ccgacaccac cgaccacggc
caccgctccc agcggaatct cgtagactta gcgccagggt tggtaaggcg tgtagcggtc
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348
<210> 2510
<211> 108
<212> PRT
<213> Homo sapiens
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                 5
Phe Val Asp Ala Arg Glu Val Leu Leu Pro Ala Thr Ile Gly Leu Asp
Val His Glu Arg Val Glu Pro Gly Lys Thr Glu Thr Gln Pro Ile Leu
                            40
Gly Asp Ala Gly Arg Gln Val Ala Glu Gly Lys His Val Asp His Val
                        55
Arg Thr Asp Thr Thr Asp His Gly His Arg Ser Gln Arg Asn Leu Val
                                        75
                    70
Asp Leu Ala Pro Gly Leu Val Arg Arg Val Ala Val Val Thr Thr Gly
Asp Leu Glu Leu Gly Ala Ser Lys Ser Ser Ala Val
            100
                                105
<210> 2511
<211> 663
<212> DNA
<213> Homo sapiens
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cctgtcatcg cacacgtcgg ttatccgcag gccgccgacg agtattacca gttgctttta
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accytycata gcycctcaa cyatyccygy atctcatcyy tygccacatt ytacyycttt
540
atgtccggac agatccccgc tgaggaacac atcccggtcg atctagctat gatcattgag
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660
gac
663
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<210> 2512

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<211> 221
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<213> Homo sapiens
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Gly Arg Gly Gly Ser Leu Thr Arg Leu Leu Ser Leu Ala Pro Val Val
                                25
            20
Asn Glu Gln Asp Leu Gln Val Leu Pro Val Ile Ala His Val Gly Tyr
                            40
Pro Gln Ala Ala Asp Glu Tyr Tyr Gln Leu Leu Leu Ala Leu Arg Pro
                        55
                                             60
Gly Arq Val Ala Gly Leu Ala Glu Ile Val Val Asn Gly Gln Pro Phe
                    70
Thr Val Thr Asp Ala Thr Glu Asp Glu Leu Ala Leu Thr Ala Trp Ala
Arg Ile Leu Leu Glu Gly Thr Pro Ile Ala Met Asp Gly Ser Trp Gln
                                105
Leu His Arg Arg Arg Ala Ala Pro Glu Pro Val Arg Phe Ala Lys Arg
                            120
Phe Gly Gly Glu Gln Ser Asn Thr Ser Ile Met Val Gly Asp Ala Ile
                        135
Ile Ile Lys Met Phe Arg Arg Leu Glu Pro Gly Asp Asn Leu Asp Ile
                                        155
                    150
Thr Val His Ser Ala Leu Asn Asp Ala Gly Ile Ser Ser Val Ala Thr
                                    170
Leu Tyr Gly Phe Met Ser Gly Gln Ile Pro Ala Glu Glu His Ile Pro
                                185
Val Asp Leu Ala Met Ile Ile Glu Arg Leu Pro Gln Pro Arg Asp Gly
                            200
Trp Glu Leu Ile Thr Ala Lys Ala Val Asp Leu Val Asp
    210
                        215
<210> 2513
<211> 368
<212> DNA
<213> Homo sapiens
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getgeageac atatteateg etacttgtge etggacaagt eggteattga geteageega
cagggcaaag agggtcagca tccgaaactg gagcatgatt gatgccaacc tgaaattgct
gcaggaagct gagcaacgtc tcaaagccat tgtggcagag aagtttgcca ttgccaccaa
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ggaaggtg 368

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<211> 93
<212> PRT
<213> Homo sapiens
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Ser Lys Val Arg Gln Leu Asp Leu Ala Lys Asn Arg Leu Tyr Gln Ala
            20
Ile Gln Arg Ala Asp Asp Ile Leu Asp Leu Lys Phe Cys Met Asp Gly
                                                45
                            40
Val Gln Thr Ala Leu Arg Ser Glu Asp Tyr Glu Gln Ala Ala Ala His
Ile His Arg Tyr Leu Cys Leu Asp Lys Ser Val Ile Glu Leu Ser Arg
                                        75
Gln Gly Lys Glu Gly Gln His Pro Lys Leu Glu His Asp
                85
<210> 2515
<211> 351
<212> DNA
<213> Homo sapiens
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tatcagtcca tecetaaaag ccaaccagge tetecegagg gaggeaggaa atceetgete
180
cctccatccc ccaccgggaa tgctgcaggg ggcttgaggg aggcgacaca gtggggagct
ctgggtgcag gtgggcagac aatgggccaa cacacccct cagccccgct ccagtatcag
cattccagac ccacccacct gggcccttgg tcaccgggag acctcacgcg t
351
<210> 2516
<211> 98
<212> PRT
<213> Homo sapiens
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Thr Gly Gln Leu Glu Tyr Gln Ser Ile Pro Lys Ser Gln Pro Gly Ser
                                                    30
Pro Glu Gly Gly Arg Lys Ser Leu Leu Pro Pro Ser Pro Thr Gly Asn.
                            40
        35
Ala Ala Gly Gly Leu Arg Glu Ala Thr Gln Trp Gly Ala Leu Gly Ala
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Gly Gly Gln Thr Met Gly Gln His Thr Pro Ser Ala Pro Leu Gln Tyr
                    70
Gln His Ser Arg Pro Thr His Leu Gly Pro Trp Ser Pro Gly Asp Leu
                85
                                     90
Thr Arg
<210> 2517
<211> 356
<212> DNA
<213> Homo sapiens
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cctgtcacca accaaaccc atgggcctat tcagcagccc caacttggct ggtctggccg
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cagtgttgag tgggcagtgt ctcactccag cccctccttc ccaggccagt tcttctcatc
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356
<210> 2518
<211> 103
<212> PRT
<213> Homo sapiens
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                                    10
Ala Gly Gly Gly Ala Arg Ala Ser Pro Gly Val Arg Thr Cys His Gln
            20
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accctcagac 660	tgacagtgag	tgagtccgag	catcagtggc	ttctggagca	gaccagccac
720				gctgatggct	
780				ttcaaagacc	
840			`	cgaggccctt	
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gccagttccc 960	ttctcccctc	ccggccaaac	ccagacccag	actctaggaa	gctggaatgg
1020				gctggaggtg	
1080				gccagaggtg	
1140				cccgtttggt	
1200				cagettggte	
1260				aacaacaggt	
1320				tctcctggag	
1380				gaaaacaccc	
1440				gtgccctcct	
tcaggccatc 1500	agctctgtcc	ctctggtgct	cccacgtctg	ttectcaccc	tccatctctg
1560				gcacaggete	
1620	*			cagtttcctt	
ggagcactct 1680	gactcctaac	agtcttcctt	gecetgecat	catctggggt	ggctggctgt

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caagaaaggc cgggcatgct ttctaaacac agccacagga ggcttgtagg gcatcttcca
ggtggggaaa cagtettaga taagtaaggt gaettgeeta aggeeteeca geaccettga
1800
tottggagto toacagcaga otgoatgtga acaactggaa ocgaaaacat gootcagtat
aaaacaaaca ttataaaacg aaaaaaaaaa aaaaaaaaag tact
1904
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<211> 207
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<213> Homo sapiens
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Met Arg Leu Asn Gln Asn Thr Leu Leu Leu Gly Lys Lys Val Val Leu
Val Pro Tyr Thr Ser Glu His Val Pro Ser Arg Tyr His Glu Trp Met
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Lys Ser Glu Glu Leu Gln Arg Leu Thr Ala Ser Glu Pro Leu Thr Leu
Glu Glu Glu Tyr Ala Met Gln Cys Ser Trp Gln Glu Asp Ala Asp Lys
                        55
Cys Thr Phe Ile Val Leu Asp Ala Glu Lys Trp Gln Ala Gln Pro Gly
                                        75
                    70
Ala Thr Glu Glu Ser Cys Met Val Gly Asp Val Asn Leu Phe Leu Thr
                                    90
Asp Leu Glu Asp Pro Thr Leu Gly Glu Ile Glu Val Met Ile Ala Glu
                                105
Pro Ser Cys Arg Gly Lys Gly Leu Gly Thr Glu Ala Val Leu Ala Met
                            120
        115
Leu Ser Tyr Gly Val Thr Thr Leu Gly Leu Thr Lys Phe Glu Ala Lys
                                            140
                        135
Ile Gly Gln Gly Asn Glu Pro Ser Ile Arg Met Phe Gln Lys Leu His
                    150
                                        155
Phe Glu Gln Val Ala Thr Ser Ser Val Phe Gln Glu Val Thr Leu Arg
                                    170
                165
Leu Thr Val Ser Glu Ser Glu His Gln Trp Leu Leu Glu Gln Thr Ser
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His Val Glu Glu Lys Pro Tyr Arg Asp Gly Ser Ala Glu Pro Cys
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<211> 509
<212> DNA
<213> Homo sapiens
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gatgtcatcg tgctgcggtt ttccggagcc atggcgaagc gtcctgcctc agttatcctt
cogotgotac tgtoggacto cocogtoatt gogtggtggc cottotocgg coctgacaac
180
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ctegectegg accepategg agecettgeg gacegeegea teacegacte ggeagetgae
 240
 aaagatoogt gcaaagcoot catacgoogt gogqotcaco taacogaggg tgactoogac
 ctgtgtttggg ctcgcaccac cagctggaga gccctagctg cagcagcttt ggatcaacat
ccagegaceg tcaagttege tegggtagag tcageegeeg gtaatgegee ggegatgetg
ctggcagect ggctaggatt gegtetegge gteeeggteg agegggtgae aaeegaegeg
cccggcatct ccgcgatcgt catgtcgac
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<211> 169
<212> PRT
<213> Homo sapiens
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Thr Arg Ser Arg Lys Asp Lys Leu Asp Ala Glu Val His Ala Gly Glu
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Gly Thr Pro Gly Asp Val Ile Val Leu Arg Phe Ser Gly Ala Met Ala
            20
                                25
Lys Arg Pro Ala Ser Val Ile Leu Pro Leu Leu Ser Asp Ser Pro
                            40
                                                45
Val Ile Ala Trp Trp Pro Phe Ser Gly Pro Asp Asn Leu Ala Ser Asp
Pro Ile Gly Ala Leu Ala Asp Arg Ile Thr Asp Ser Ala Ala Asp
                   . 70
Lys Asp Pro Cys Lys Ala Leu Ile Arg Arg Ala Ala His Leu Thr Glu
                                    90
Gly Asp Ser Asp Leu Cys Trp Ala Arg Thr Thr Ser Trp Arg Ala Leu
            100
                                105
Ala Ala Ala Leu Asp Gln His Pro Ala Thr Val Lys Phe Ala Arg
                            120
Val Glu Ser Ala Ala Gly Asn Ala Pro Ala Met Leu Leu Ala Ala Trp
                        135
                                            140
Leu Gly Leu Arg Leu Gly Val Pro Val Glu Arg Val Thr Thr Asp Ala
                                        155
                    150
Pro Gly Ile Ser Ala Ile Val Met Ser
                165
<210> 2539
<211> 453
<212> DNA
<213> Homo sapiens
<400> 2539
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togoggcatg accogaggat agtgacgtgg gacaatggct acgtgcgttt totcaacgag
cagoogaact acgacotgac gtatgacgac gtottcatgg caccaaaccg ttootcggtg
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gggtcccgca tgaacgtcga cctcacgtca acagacgggc taggcactcc tctgcccctc
240
gtagtggcca atatgaccgc aatttccgga cgtcgcatgg cagagaccat cgccaggcgc
ggaggcattg ctgttctgcc ccaagatatc ccggcggatt tcgtcgcccg gtccattcgg
cgcgtcaaag atgcgcatac tcgattcgac accccagtca ccgtcaaccc gacaacgact
gtcggtgagg ccatgaactt gctcaacaag cgc
<210> 2540
<211> 134
<212> PRT
<213> Homo sapiens
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Phe Ala Ala Ser Arg His Asp Pro Arg Ile Val Thr Trp Asp Asn Gly
Tyr Val Arg Phe Leu Asn Glu Gln Pro Asn Tyr Asp Leu Thr Tyr Asp
            20
Asp Val Phe Met Ala Pro Asn Arg Ser Ser Val Gly Ser Arg Met Asn
                            40
Val Asp Leu Thr Ser Thr Asp Gly Leu Gly Thr Pro Leu Pro Leu Val
                        55
Val Ala Asn Met Thr Ala Ile Ser Gly Arg Arg Met Ala Glu Thr Ile
                                        75
Ala Arg Arg Gly Gly Ile Ala Val Leu Pro Gln Asp Ile Pro Ala Asp
Phe Val Ala Arg Ser Ile Arg Arg Val Lys Asp Ala His Thr Arg Phe
                                105
            100
Asp Thr Pro Val Thr Val Asn Pro Thr Thr Thr Val Gly Glu Ala Met
        115
                            120
Asn Leu Leu Asn Lys Arg
    130
<210> 2541
<211> 564
<212> DNA
<213> Homo sapiens
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ccctgcatgg aacccattgc agggcacacg cagtctacat gtatcccagg ttttatgctc
acagagectg caatacteeg tgtetggaat aegttatttg etgeacacet eecagaggaa
180
catgtaacgt ctgtgtaaca tgctatcctg cacacatctg aaagaatctg tgtacacaac
actattatgc tgtgcacaca tttcctcata ttctgtgtag agagcacctc attttgtact
caaatattcg gcttccataa caagttacat tgctcacatc ttaaaatatt cattacacgt
360
```

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gaaaccaccg catggtaccg acateettet qqaatgteec geacagagge tgatatatgt
 420
geacagttet cattgttetg cgtgcccage cecteacact ggacgcccae etcacactet
totgocaagg gagactttgg ttotcocctt coctgtgctg gotgtgcggg ccacagtcct
ctgcacgcca gcagcatgac gcgt
564
<210> 2542
<211> 106
<212> PRT
<213> Homo sapiens
<400> 2542
Met Leu Cys Thr His Phe Leu Ile Phe Cys Val Glu Ser Thr Ser Phe
                 5
                                     10
Cys Thr Gln Ile Phe Gly Phe His Asn Lys Leu His Cys Ser His Leu
            20
                                 25
                                                     30
Lys Ile Phe Ile Thr Arg Glu Thr Thr Ala Trp Tyr Arg His Pro Ser
        35
                                                 45
Gly Met Ser Arg Thr Glu Ala Asp Ile Cys Ala Gln Phe Ser Leu Phe
                        55
Cys Val Pro Ser Pro Ser His Trp Thr Pro Thr Ser His Ser Ser Ala
Lys Gly Asp Phe Gly Ser Pro Leu Pro Cys Ala Gly Cys Ala Gly His
                85
                                    90
Ser Pro Leu His Ala Ser Ser Met Thr Arg
            100
<210> 2543
<211> 387
<212> DNA
<213> Homo sapiens
<400> 2543
cgcctgaagg gggcgggaa aatggaatgg gggggaaggg cgcgggtggg gacatgctgg
aacgtgccca tgctttctgc accacactgg atgactgaag gggaaggaac gagcgtctta
ccgctcctga tgagattttt gtttttgcct aacaaagaaa tgtgtatgaa tgcacgtctg
tttgcagggg cagggaggag gagggtcctt ggaatagctg ccgacaacag ctggaactcc
tgtctgggtc ccccagctgg gctagagagg gcagtgatca tctgtccact ggacaggaag
gtttgcaaag ggctgtttgc ttactgggtc ccaattttta gccttctgaa gcccctgtcc
aatggggccc agcaggcagc agtgctg
387
<210> 2544
<211> 122
<212> PRT
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<213> Homo sapiens <400> 2544 Met Glu Trp Gly Gly Arg Ala Arg Val Gly Thr Cys Trp Asn Val Pro Met Leu Ser Ala Pro His Trp Met Thr Glu Gly Glu Gly Thr Ser Val 25 Leu Pro Leu Leu Met Arg Phe Leu Phe Leu Pro Asn Lys Glu Met Cys Met Asn Ala Arg Leu Phe Ala Gly Ala Gly Arg Arg Val Leu Gly Ile Ala Ala Asp Asn Ser Trp Asn Ser Cys Leu Gly Pro Pro Ala Gly 75 70 Leu Glu Arg Ala Val Ile Ile Cys Pro Leu Asp Arg Lys Val Cys Lys 90 Gly Leu Phe Ala Tyr Trp Val Pro Ile Phe Ser Leu Leu Lys Pro Leu 105 Ser Asn Gly Ala Gln Gln Ala Ala Val Leu 120 115 <210> 2545 <211> 336 <212> DNA <213> Homo sapiens <400> 2545 gegattattt tegtgetgee eggaettate atggtegget ggtggteagg ttteeegtae tggaccaccc tcgctatctg tctagtcggc ggcatcctcg gcgttatgta ctcgattccg ctgcgtcggg ccctcgtgac aggctcggat cttccctacc cggagggcgt cgcaggagct gaggtgctca aagtaggcga ttccgctggt gccgccgagg ctaacaaggt gggtctgcga gtcatcatcg tcggttctgt ggtctctgca gcgtacgccc tgttgtcgga tcttaagctt gtgaagtegg cgctgaccaa gcctttcaag acgggc 336 <210> 2546 <211> 112 <212> PRT <213> Homo sapiens <400> 2546 Ala Ile Ile Phe Val Leu Pro Gly Leu Ile Met Val Gly Trp Trp Ser Gly Phe Pro Tyr Trp Thr Thr Leu Ala Ile Cys Leu Val Gly Gly Ile Leu Gly Val Met Tyr Ser Ile Pro Leu Arg Arg Ala Leu Val Thr Gly 40 Ser Asp Leu Pro Tyr Pro Glu Gly Val Ala Gly Ala Glu Val Leu Lys

Val Gly Asp Ser Ala Gly Ala Ala Glu Ala Asn Lys Val Gly Leu Arg

55

50

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80
                    70
Val Ile Ile Val Gly Ser Val Val Ser Ala Ala Tyr Ala Leu Leu Ser
                85
                                    90
Asp Leu Lys Leu Val Lys Ser Ala Leu Thr Lys Pro Phe Lys Thr Gly
            100
                                105
<210> 2547
<211> 556
<212> DNA
<213> Homo sapiens
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ttcccacaca tctcaccata tcactttctc tttacttttt aaagacaggg cacttgccct
tatggccaat aatattatgc ccaagctaca acattccgag tcaatcacaa aggttataaa
cttcatttga actgaagacc acctgtaagc acgcagctca aatgttctca cctagaaatt
caagttgtgt ttggaaagtg gacttaacgg tcaaagaaaa aggcctggcc aacttcagag
agggacaccc agccctgcta cgttgcgtgt cattatgtgg tgctgtgcta tccatagaga
aagaggagat gaaaaagatt ctacaaagag agatcaaact gcaagaaagc acaaagattt
catcaccaca atatgaaggc ctccttggta taaatgactt ttttaggtcc caataagaaa
taccatctat totatotgga attattttat tagottcaaa ttttattota agattcatac
tatcagatca tctaga
556
<210> 2548
<211> 106
<212> PRT
<213> Homo sapiens
<400> 2548
Met Asn Leu Arg Ile Lys Phe Glu Ala Asn Lys Ile Ile Pro Asp Arg
Ile Asp Gly Ile Ser Tyr Trp Asp Leu Lys Lys Ser Phe Ile Pro Arg
Arg Pro Ser Tyr Cys Gly Asp Glu Ile Phe Val Leu Ser Cys Ser Leu
                            40
Ile Ser Leu Cys Arg Ile Phe Phe Ile Ser Ser Phe Ser Met Asp Ser
                                            60
Thr Ala Pro His Asn Asp Thr Gln Arg Ser Arg Ala Gly Cys Pro Ser
Leu Lys Leu Ala Arg Pro Phe Ser Leu Thr Val Lys Ser Thr Phe Gln
                                    90
Thr Gln Leu Glu Phe Leu Gly Glu Asn Ile
            100
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<210> 2549
<211> 435
<212> DNA
<213> Homo sapiens
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atcgatgata atggtgtcgg catgtctcgt gaagaagcca ttacaaactt aggtacgatt
gctaaatcgg gcacctcttc tttcttagag caattgagtg gcgatcagaa aaaagacagc
caacttattg gtcaattcgg tgtaggcttt tactctgctt tcatcgttgc tgataaagta
acagtagaaa cacgtcgcgc aggtgcgacg gaaaatgaag cggttcgctg ggtatctgat
ggttctggtg aatttactat tgagacgatc gataaagcga ctcgtggtac acgcattact
ttgcatctga aagcagatga aaaagatttc gcagacaact tccgtctacg ttcattagta
acaaaatatt ctgat
435
<210> 2550
<211> 145
<212> PRT
<213> Homo sapiens
<400> 2550
Xaa Gln. Pro Leu Ser Asp Arg Val Arg Ile Glu Phe Asp Lys Glu Ala
Asn Thr Val Val Ile Asp Asp Asn Gly Val Gly Met Ser Arg Glu Glu
                                 25
Ala Ile Thr Asn Leu Gly Thr Ile Ala Lys Ser Gly Thr Ser Ser Phe
                            40
Leu Glu Gln Leu Ser Gly Asp Gln Lys Lys Asp Ser Gln Leu Ile Gly
Gln Phe Gly Val Gly Phe Tyr Ser Ala Phe Ile Val Ala Asp Lys Val
                                        75
Thr Val Glu Thr Arg Arg Ala Gly Ala Thr Glu Asn Glu Ala Val Arg
                                    90
Trp Val Ser Asp Gly Ser Gly Glu Phe Thr Ile Glu Thr Ile Asp Lys
                                105
Ala Thr Arg Gly Thr Arg Ile Thr Leu His Leu Lys Ala Asp Glu Lys
                            120
Asp Phe Ala Asp Asn Phe Arg Leu Arg Ser Leu Val Thr Lys Tyr Ser
                                            140
                        135
    130
Asp
145
<210> 2551
<211> 403
<212> DNA
<213> Homo sapiens
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<400> 2551
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ggactccact totggggacg cotggttogt togcccacca ggcctaggct acgctccatg
ctccccage aatctctgtc tacacctcct geggegeett geecteetee gaccccttte
cagccannaa gtccccccac cccttcagag aagcagcctc aaattccaga agtggaggct
ccaqcctccc cgcgaggtac cagccccaca gtcttctggg agccattgtg gccagggacg
geetetggae tgeeaggetg ggttggggae cagggaacat eggtetaete aggtgtgagg
gggcaggtet ggcctgccc aaagttggct ccatcctgga can
403
<210> 2552
<211> 134
<212> PRT
<213> Homo sapiens
<400> 2552
Xaa Pro Ala Ser Leu Thr Ser Val Ser Pro Pro Arg Gly Arg Leu Ser
Thr Leu Asn Arg Gly Leu His Phe Trp Gly Arg Leu Val Arg Ser Pro
Thr Arg Pro Arg Leu Arg Ser Met Leu Pro Gln Gln Ser Leu Ser Thr
                            40
Pro Pro Ala Ala Pro Cys Pro Pro Pro Thr Pro Phe Gln Pro Xaa Ser
                        55
Pro Pro Thr Pro Ser Glu Lys Gln Pro Gln Ile Pro Glu Val Glu Ala
                                        75
Pro Ala Ser Pro Arg Gly Thr Ser Pro Thr Val Phe Trp Glu Pro Leu
                                    90
                85
Trp Pro Gly Thr Ala Ser Gly Leu Pro Gly Trp Val Gly Asp Gln Gly
                                105
            100
Thr Ser Val Tyr Ser Gly Val Arg Gly Gln Val Trp Pro Ala Pro Lys
                                                 125
                            120
Leu Ala Pro Ser Trp Thr
    130
<210> 2553
<211> 380
<212> DNA
<213> Homo sapiens
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gagagataca gcatgggcca aggagcactg ggagccagca gcagctggaa gaggcaggag
gcatcctccc tagaccgcac aggatgctac tgggtgagcc tgctgtcctg gaaaaggcgt
180
```

```
gaagtetgee tgagtgggea ggggettetg egeageacee ageaaggeea aggtggaagg
gaccetectg geceetgtee tggetecace eteagetget ggcaggtggg teaccaggee
tetgeccaaa gaaacteetg caggeagete tggacceet gtettacaca cetteteact
gageetgeea geateceagn
380
<210> 2554
<211> 111
<212> PRT
<213> Homo sapiens
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Met Lys Gln Arg Leu Glu Arg Tyr Ser Met Gly Gln Gly Ala Leu Gly
                                    10
Ala Ser Ser Ser Trp Lys Arg Gln Glu Ala Ser Ser Leu Asp Arg Thr
                                . 25
Gly Cys Tyr Trp Val Ser Leu Leu Ser Trp Lys Arg Arg Glu Val Cys
Leu Ser Gly Gln Gly Leu Leu Arg Ser Thr Gln Gln Gly Gln Gly Gly
Arg Asp Pro Pro Gly Pro Cys Pro Gly Ser Thr Leu Ser Cys Trp Gln
                                        75
Val Gly His Gln Ala Ser Ala Gln Arg Asn Ser Cys Arg Gln Leu Trp
                85
Thr Pro Cys Leu Thr His Leu Leu Thr Glu Pro Ala Ser Ile Pro
                                105
            100
<210> 2555
<211> 368
<212> DNA
<213> Homo sapiens
<400> 2555
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atgttgttaa tgctgcccgg tagttcggtg gcattcttca tgggcaatag tttaatggga
120
gataacgcga ataatggtag tgtcgttcta gtgctcacag acctggtcac ccaaatagaa
180
ggatttatat cotcocatat cotcattttt gtgctcgttg gcctcggcat tgtctttacc
240
gttgccactc gaggtgtaca gttccgcctc ttcgggcaca tgtggcacct catgctcgat
tcacggaagc aaaagggcac ctccctctcc agctctcaag cattcacagt gggtctcgat
360
cacgcggn
368
<210> 2556
<211> 102
<212> PRT
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<213> Homo sapiens <400> 2556 Met Leu Leu Met Leu Pro Gly Ser Ser Val Ala Phe Phe Met Gly Asn 10 Ser Leu Met Gly Asp Asn Ala Asn Asn Gly Ser Val Val Leu Val Leu 20 25 Thr Asp Leu Val Thr Gln Ile Glu Gly Phe Ile Ser Ser His Ile Leu 40 Ile Phe Val Leu Val Gly Leu Gly Ile Val Phe Thr Val Ala Thr Arg Gly Val Gln Phe Arg Leu Phe Gly His Met Trp His Leu Met Leu Asp 70 75 Ser Arg Lys Gln Lys Gly Thr Ser Leu Ser Ser Ser Gln Ala Phe Thr 90 Val Gly Leu Asp His Ala 100 <210> 2557 <211> 408 <212> DNA <213> Homo sapiens <400> 2557 atcactactc cagttggtga ggcagttctg ggtcgcatct taaatgtgat cggtgagccg attgatgaga tgggcccagt taacgcgaaa gaaaaatggg aaattcaccg tccagctcct aaattcgaag accaagctgt taaagctgag atgttgatga ctggtattaa ggtcgttgat cttcttgcac cttacgcaaa gggtggcaag atcggtctct tcggtggtgc gggcgtaggt aaaacagttt tgattcaaga gttgattcgt aacatcgcta ctgagcacgg tggatactct gtattcgcag gtgtcggcga gcgtactcgc gaaggtaacg atctttgggt tgagatgaaa gaatcaggcg ttatcgcaaa gaccgcactt gtattcggtc agatgaat 408 <210> 2558 <211> 136 <212> PRT <213> Homo sapiens <400> 2558 Ile Thr Thr Pro Val Gly Glu Ala Val Leu Gly Arg Ile Leu Asn Val Ile Gly Glu Pro Ile Asp Glu Met Gly Pro Val Asn Ala Lys Glu Lys 20 25 Trp Glu Ile His Arg Pro Ala Pro Lys Phe Glu Asp Gln Ala Val Lys Ala Glu Met Leu Met Thr Gly Ile Lys Val Val Asp Leu Leu Ala Pro

Tyr Ala Lys Gly Gly Lys Ile Gly Leu Phe Gly Gly Ala Gly Val Gly

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70
65
Lys Thr Val Leu Ile Gln Glu Leu Ile Arg Asn Ile Ala Thr Glu His
                85
Gly Gly Tyr Ser Val Phe Ala Gly Val Gly Glu Arg Thr Arg Glu Gly
                                                    110
                               105
Asn Asp Leu Trp Val Glu Met Lys Glu Ser Gly Val Ile Ala Lys Thr
                            120
Ala Leu Val Phe Gly Gln Met Asn
    130
<210> 2559
<211> 389
<212> DNA
<213> Homo sapiens
<400> 2559
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gcttttctga aagatcgact gaatgcaata caggaagagc attctaagga cctgaagctg
ttgcatctcg aagttatgaa tttgcgccag caactgagag ctgtaaaaga ggaagaagac
aaggcacaag atgaggtgca aaggttgact gccactctga agattgcctc gcagacaaag
aagaatgcag ccattattga agaggaactg aagaccacaa aacgtaaaat gaaccttaaa
attcaagagc ttctagagat gacctcattt ccaagttggt tgaagaaaat aagaacctgc
aggatatett teaacaggaa catgaagaa
389
<210> 2560
<211> 129
<212> PRT
<213> Homo sapiens
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Ser Leu Lys Met Asn Ile Phe Arg Leu Gln Thr Glu Lys Asp Leu Asn
                                    10
Pro Gln Lys Thr Ala Phe Leu Lys Asp Arg Leu Asn Ala Ile Gln Glu
Glu His Ser Lys Asp Leu Lys Leu Leu His Leu Glu Val Met Asn Leu
Arg Gln Gln Leu Arg Ala Val Lys Glu Glu Glu Asp Lys Ala Gln Asp
                        55
Glu Val Gln Arg Leu Thr Ala Thr Leu Lys Ile Ala Ser Gln Thr Lys
                                        75
                    70
Lys Asn Ala Ala Ile Ile Glu Glu Glu Leu Lys Thr Thr Lys Arg Lys
                                    90
Met Asn Leu Lys Ile Gln Glu Leu Leu Glu Met Thr Ser Phe Pro Ser
                                105
Trp Leu Lys Lys Ile Arg Thr Cys Arg Ile Ser Phe Asn Arg Asn Met
                                                125
                            120
Lys
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<210> 2561
<211> 429
<212> DNA
<213> Homo sapiens
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atgtggagcc atttgaacag gctcctcttc tggagcatat tttcttctgt cacttgtaga
aaagctgtat tggattgtga ggcaatgaaa acaaatgaat tcccttctcc atgtttggac
tcaaagacta aggtgqttat gaagggtcaa aatgtatcta tgttttgttc ccataagaac
aaatcactgc agatcaccta ttcattgttt cgacgtaaga cacacctggg aacccaggat
ggaaaaggtg aacctgcgat ttttaaccta agcatcacag aagcccatga atcaggccc
tacaaatgca aagcccaagt taccagctgt tcaaaataca gtcgtgactt cagcttcacg
420
attgtcgac
429
<210> 2562
<211> 143
<212> PRT
<213> Homo sapiens
<400> 2562
Xaa Leu Thr Thr Val Val Leu Leu Cys Leu Leu Thr Pro Ser Trp Thr
                                    10
Ser Thr Gly Arg Met Trp Ser His Leu Asn Arg Leu Leu Phe Trp Ser
Ile Phe Ser Ser Val Thr Cys Arg Lys Ala Val Leu Asp Cys Glu Ala
                            40
Met Lys Thr Asn Glu Phe Pro Ser Pro Cys Leu Asp Ser Lys Thr Lys
                        55
Val Val Met Lys Gly Gln Asn Val Ser Met Phe Cys Ser His Lys Asn
                    70
                                        75
Lys Ser Leu Gln Ile Thr Tyr Ser Leu Phe Arg Arg Lys Thr His Leu
                                    90
Gly Thr Gln Asp Gly Lys Gly Glu Pro Ala Ile Phe Asn Leu Ser Ile
                                105
Thr Glu Ala His Glu Ser Gly Pro Tyr Lys Cys Lys Ala Gln Val Thr
                            120
Ser Cys Ser Lys Tyr Ser Arg Asp Phe Ser Phe Thr Ile Val Asp
                                            140
    130
<210> 2563
<211> 267
<212> DNA
<213> Homo sapiens
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<400> 2563
ggatcccaga cgagtgctgg cagcagtatg ggggccgtgg gggcgacggc caccgtcagc
accceggica ccatccagaa catgacctcc tcttatgica ccatcacatc ccatgicctt
aaggeettta eeetttggga acaggeagag geeetcacaa ggaagaacaa agaattettt
gctcagctca gcacaaaagt gcgcgtgttg gccctcaaca gcagcctggt ggacctggtg
240
cactacacaa ggcagggcct ccagcgg
267 .
<210> 2564
<211> 89
<212> PRT
<213> Homo sapiens
<400> 2564
Gly Ser Gln Thr Ser Ala Gly Ser Ser Met Gly Ala Val Gly Ala Thr
Ala Thr Val Ser Thr Pro Val Thr Ile Gln Asn Met Thr Ser Ser Tyr
Val Thr Ile Thr Ser His Val Leu Lys Ala Phe Thr Leu Trp Glu Gln
Ala Glu Ala Leu Thr Arg Lys Asn Lys Glu Phe Phe Ala Gln Leu Ser
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Thr Lys Val Arg Val Leu Ala Leu Asn Ser Ser Leu Val Asp Leu Val
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His Tyr Thr Arg Gln Gly Leu Gln Arg
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gacatcgccc agttgcagca actcggtgtc tccgatgtgg tcgatctgcg ttccacctat
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Leu Pro Phe Arg Lys Gln Gln Ile Thr Pro Tyr Val Gly Ile Asp Ile

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70
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Gly His Val Trp Gly Pro Ser Thr Glu Thr Gln Leu Gly Asn Thr Leu
Ile Gly Gly Val Val Gly Val Arg Gly Met Val Gly Asp Asp Val Asn
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Thr Asp Thr Arg
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Phe Thr Val Thr Arg Asp Thr Ser Gly Glu Gln Leu Gly Arg Gly Thr
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Lys Ile Thr Leu Phe Leu Lys Asp Asp Gln Leu Glu Tyr Leu Glu Glu
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Pro Ile Ser Leu Trp Thr Glu Lys Thr Thr Glu Lys Glu Ile
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Leu Phe Thr Glu Ile Ala Arg Glu Lys Trp Asp Val Arg Leu Gly Gln
Gly Thr Thr Ala Ile Asp Gln Val Glu Lys Gln Arg Glu Asp Gly Ser
Ser Tyr Phe Glu Thr Thr Ile Thr Phe Glu Asp Gly Ser Thr Val Thr
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Gly Asp Ala Phe Leu Val Ala Thr Gly Arg Thr Pro Asn Thr Asp Arg
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cgccactggc acgatgaggg ccatcaccga gaagagaacg gccaccactc gcagaccacc
togtoccaga agagogagga cgaaggogat gacggogatg accagagoog gtacagocaa
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360
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460
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Arg Arg Cys Arg His Trp His Asp Glu Gly His His Arg Glu Glu Asn
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Gly His His Ser Gln Thr Thr Ser Ser Gln Lys Ser Glu Asp Glu Gly
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Asp Asp Gly Asp Asp Gln Ser Arg Tyr Ser Gln Arg Ser His Gln Asn
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660
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ccccagtgtc 840	cccaaagcat	catgtaccgc	egetteetee	gccctcgcta	ccgtgtggcc
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1200				agccagctga	
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cagatgcagg 2880	cagccctgct	ggagaagctg	gtcgggggac	aggegggeet	gggcaggcgg
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3120		tgaacaggga			
3180		tctgagtttg			
gacagagtcc 3240	tgctcaatga	tggaggctat	tatgatccag	agacaggcgt	gttcacagcg
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3720		gcagcggcac			
3780		gctcggggcc			
3840		ccggcctgcg			
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Leu	370	vaı	vai	Ala	GIY	375	Vai	1111	V 41	200	380	1		5	2
Thr	21v	T 011	Glv	Glv	Δla		Glv	Gln	Glv	Glv		Pro	Pro	Gly	Tyr
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Thr	Ser	T.eu	Δla	Ser		Leu	Ser	Arg	Leu		Asp	Arg	Phe	Asn	Ser
1111	361	שכע	ALU	405			• • • •	3	410		-	_		415	
Thr	T.e.11	Glv	Pro		Glu	Glu	Gln	Glu	Glu	Ser	Trp	Pro	Gly	Ala	Pro
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Leu	Cys	Ser	Gly	Ala	Pro	Gly	Glu	Gln	Asp	Ser	Gln	Val	Ser	Glu	Ile
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Leu	Ser	Ala	Leu	Glu	Arg	Arg	Val	Leu	Asp	Ser	Glu	Gly	Gln	Leu	Arg
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Gln	Ala	Thr	Leu	Glu	Gly		Gln	Glu	Val	Val		Arg	Leu	GIn	Asp
	530					535					540		•	•	•
Arg	Val	Asp	Ala	Gln		Glu	Thr	Ala	Ala		Phe	Thr	Leu	Arg	Leu
545				_	550				_	555	~1	.	T	~1 ~	560
Asn	Leu	Thr	Ala		Arg	Leu	GIY	Gln		GIU	GIY	Leu	Leu	575	ALA
		_		565		-1		~	570	~1··	17-3	G3n	G111		1.611
His	Gly	Asp		Gly	Cys	GIY	Ala	Cys	GIŸ	GIY	vai	GIII	590	GIU	Dea
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Gly	Arg		Arg	Asp	GIĀ	vai	600	Arg	Cys	Ser	Cys	605	neu	u	110
		595	D	C1	ת 1 ת	Gly		Gly	Va 1	Glv	GIV		Ser	Ara	Gly
Pro	_	GIY	PIO	GIY	Ald	615	PIO	GLy	Val	GLY	620	110	002		U -1
7	610	7 ~~	C111	Dha	car		Dhe	Glv	Glv	Ser		Glv	Ser	Ala	Leu
	ren	ASP	GLY	FIIC	630	VAI	T 11/-	-	,	635		,			640
625	בוג	T.011	Gln	Glv		Leu	Ser	Glu	Val		Leu	Ser	Phe	Ser	Ser
GIII	AIG	Deu	GIII	645	014				650					655	
T.au) en	Asn	Ser		Asn	Glu	Leu	Gln		Thr	Val	Glu	Gly	Gln	Gly
Deu	A511	,,,,,p	660					665					670		
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Pro	Ser	Leu	Glu	Gly	Arg	Leu	Gly	Arg	Leu	Glu	Gly	Val	Cys	Glu	Arg
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Leu	Asp	Thr	Val	Ala	Gly	Gly	Leu	Gln	Gly	Leu	Arg	Glu	Gly	Leu	Ser
			740					745					750		
Arg	His	Val	Ala	Gly	Leu	Trp	Ala	Gly	Leu	Arg	Glu	Thr	Asn	Thr	Thr
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Ser	Gln	Met	Gln	Ala	Ala	Leu	Leu	Glu	Lys	Leu		Gly	Gly	Gln	Ala
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Gly	Leu	Gly	Arg	Arg	Leu	Gly	Ala	Leu	Asn	Ser	Ser	Leu	GIn	Leu	Leu

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Gly Glu Ala Gly Pro Pro Gly Pro Pro Gly Leu Gln Gly Pro Pro Gly
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Pro Ala Gly Pro Pro Gly Ser Pro Gly Lys Asp Gly Gln Glu Gly Pro
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Ile Gly Pro Pro Gly Pro Gln Gly Glu Gln Gly Val Glu Gly Ala Pro
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Ala Ala Pro Val Pro Gln Val Ala Phe Ser Ala Ala Leu Ser Leu Pro
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Arg Ser Glu Pro Gly Thr Val Pro Phe Asp Arg Val Leu Leu Asn Asp
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Gly Gly Tyr Tyr Asp Pro Glu Thr Gly Val Phe Thr Ala Pro Leu Ala
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Gly Arg Tyr Leu Leu Ser Ala Val Leu Thr Gly His Arg His Glu Lys
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Val Glu Ala Val Leu Ser Arg Ser Asn Gln Gly Val Ala Arg Val Asp
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Ser Gly Gly Tyr Glu Pro Glu Gly Leu Glu Asn Lys Pro Val Ala Glu
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Ser Gln Pro Ser Pro Gly Thr Leu Gly Val Phe Ser Leu Ile Leu Pro
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Leu Gln Ala Gly Asp Thr Val Cys Val Asp Leu Val Met Gly Gln Leu
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Cys Leu Leu Ser Lys Leu Arg Gly Ser Thr Gly Ala Gly Gln Thr Leu
                                                45
                            40
Leu Pro Pro Ala Gly Gln Cys Ser Leu Gly Tyr Arg Ala Leu Ser Pro
                        55
Thr Val Thr Pro Glu Trp Ile Pro Ala Leu Pro Ala Leu Gly Ser Gln
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Trp Gly Leu Gly Ala Ser Gln Gly Gln His Glu Pro Leu Ala Arg Val
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Ser Asn Arg Pro
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Thr Ala Thr Glu Ile Arg Asn Gln Val Lys Lys Glu Met Ile Leu Ala
Lys Arg Phe Phe Phe Ile Val Phe Thr Asp Ala Leu Cys Trp Ile Pro
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Ile Phe Val Val Lys Phe Leu Ser Leu Leu Gln Val Glu Ile Pro Gly
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                    70
Thr Ile Thr Ser Trp Val Val Ile Phe Ile Leu Pro Ile Asn Ser Ala
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85
                                     90
Leu Asn Pro Ile Leu Tyr Thr Leu Thr Thr Arg Pro Phe Lys Glu Met
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            100
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                            120
Lys Gly Gln Lys Thr Glu Ala Gly Val Cys Ser Arg
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Gln Thr Thr Val Pro Asp Thr Gln Gln Phe Val Tyr Gln Ala His Ser
Leu Asp Lys Ile Glu Ile Ile Gly Arg Ile Leu Gln Ala Asn Asp Val
                        55
Glu Lys Val Ile Ile Phe Cys Arg Thr Lys Arg Ala Cys Gln Arg Leu
                    70
                                        75
Ser Asp Asp Leu Asp Asp Arg Gly Phe Lys Thr Arg Ala Ile His Gly
                                    90
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agcageceae gagttgteea geaccaggee aggggteagt cageaatgag gaeageteet
teetgeteea gggeaggeee tgggeaggge aatgetgggg acaeggtggg gagtaggeea
cagettetgt gggggagtte ctatggcagg aggateatge ccageagegt ggaagageaa
ggggtgaccc tgcactcgag gctcctggga agacggggag ggttgaggtt acatgaggga
gaggggtcag ttggtgcatt cacagaacag cagggtggcc a
341
<210> 2592
<211> 109
<212> PRT
<213> Homo sapiens
<400> 2592
Met Thr Ser Pro Tyr His Gln Gly His Thr Cys Val Ile Leu Gly Leu
Ser Ser Pro Arg Val Val Gln His Gln Ala Arg Gly Gln Ser Ala Met
                                25
Arg Thr Ala Pro Ser Cys Ser Arg Ala Gly Pro Gly Gln Gly Asn Ala
                            40
Gly Asp Thr Val Gly Ser Arg Pro Gln Leu Leu Trp Gly Ser Ser Tyr
                        55
Gly Arg Arg Ile Met Pro Ser Ser Val Glu Glu Gln Gly Val Thr Leu
                                        75
                    70
His Ser Arg Leu Leu Gly Arg Arg Gly Gly Leu Arg Leu His Glu Gly
                                    90
Glu Gly Ser Val Gly Ala Phe Thr Glu Gln Gln Gly Gly
                                105
            100
<210> 2593
<211> 501
<212> DNA
<213> Homo sapiens
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 gcgctttcat ggggttttat ggaggtggat gaatatgagg cggatgatat tatcggtacc
 ttggcgcgcc aagcggatga agcgggggat tatatgactt atattgtgtc ttcggacctc
 gatatgctgc aaatcgtaga tgaaaacacc aagatgtatc gaattctgcg gggattttcg
 gatctcgagg agatggatac tccagcgatt gaagaaaaat atggaatctt gaagtcgcaa
 tttttggacc tgaaggcgct gaagggggat aattcggata atattccagg cgtaccaggg
 attggtgaga aaaccgcagt gaaactcttg aatgagtatg gtagcttgga ggggatttat
 420
 aatcatatca aggaaatttc gggggcgaca cagaagaaat tgattgctgg acgcgaatca
gctgagatgt ctcttaagct t
501
<210> 2594
<211> 167
<212> PRT
<213> Homo sapiens
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Arg Val Arg Pro Pro Glu Asp Phe Tyr Ala Gln Ile Pro Leu Leu Arg
                                     10
Glu Leu Ile Ser Ala Leu Ser Trp Gly Phe Met Glu Val Asp Glu Tyr
                                 25
Glu Ala Asp Asp Ile Ile Gly Thr Leu Ala Arg Gln Ala Asp Glu Ala
                             40
Gly Asp Tyr Met Thr Tyr Ile Val Ser Ser Asp Leu Asp Met Leu Gln
Ile Val Asp Glu Asn Thr Lys Met Tyr Arg Ile Leu Arg Gly Phe Ser
                    70
                                        75
Asp Leu Glu Glu Met Asp Thr Pro Ala Ile Glu Glu Lys Tyr Gly Ile
                85
                                    90
Leu Lys Ser Gln Phe Leu Asp Leu Lys Ala Leu Lys Gly Asp Asn Ser
                                105
Asp Asn Ile Pro Gly Val Pro Gly Ile Gly Glu Lys Thr Ala Val Lys
                            120
Leu Leu Asn Glu Tyr Gly Ser Leu Glu Gly Ile Tyr Asn His Ile Lys
                        135
                                            140
Glu Ile Ser Gly Ala Thr Gln Lys Lys Leu Ile Ala Gly Arg Glu Ser
                    150.
                                        155
Ala Glu Met Ser Leu Lys Leu
                165
<210> 2595
<211> 928
<212> DNA
<213> Homo sapiens
```

agatetteca gatgeaacaa tgateaatta agacaegegg egacatggtg geeeetgeet

<400> 2595

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cacccccag ggatacctgt aatacctgct tcccacttca tgggctacaa tctcatgctg
gtcacaattt ctggggctca ctcatataac accaacaaat gggatatttg tgaagaactt
180
cgcctgcggg agcttgaaga agtcaaggcc agagctgctc agatggaaaa gaccatgcgg
tggtggtcgg actgcactgc caactggaga gaaaaatgga gtaaagttcg agctgaaagg
aacagtgccg gaaaggaagg aagacaactc agaataaaac tagagatggc gatgaaagaa
teggatecae tgaaacagaa acagagtttg ceaetteaga aggaggeatt agaagetaat
gttacccagg atctgaagct tcctggcttc gtagaagaat cctgtgaaca tacagaccaa
tttcaattqa qttcacaaat gcatgagtct atcagagagt atttggtaaa aagacaattt
540
tctacaaagg aggacacaaa taataaggaa caaggtgtgg ttattgattc tctaaaatta
agtgaggaga tgaagcccaa tctagatggt gttgatttat tcaacaatgg tggttctgga
aacggtgaaa cgaaaactgg gctgagactg aaagcaataa atctgccttt ggaaaatgaa
gtaactgaaa tttcagctit gcaggtgcat ttggatgaat tccaaaaaat cttatggaag
gaaagagaaa tgcgcacagc tttggaaaaa gaaatagaga gactggagtc ggctttgtct
840
ctgtggaagt ggaagtatga agaactgaaa gaatcaaagc caaaaaatgt gaaagagttt
gacattette ttggtcaaca taatgatg
928
<210> 2596
<211> 309
<212> PRT
<213> Homo sapiens
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Arg Ser Ser Arg Cys Asn Asn Asp Gln Leu Arg His Ala Ala Thr Trp
Trp Pro Leu Pro His Pro Pro Gly Ile Pro Val Ile Pro Ala Ser His
                                25
Phe Met Gly Tyr Asn Leu Met Leu Val Thr Ile Ser Gly Ala His Ser
Tyr Asn Thr Asn Lys Trp Asp Ile Cys Glu Glu Leu Arg Leu Arg Glu
                        55
Leu Glu Glu Val Lys Ala Arg Ala Ala Gln Met Glu Lys Thr Met Arg
                    70
                                        75
Trp Trp Ser Asp Cys Thr Ala Asn Trp Arg Glu Lys Trp Ser Lys Val
                85
                                    90
Arg Ala Glu Arg Asn Ser Ala Gly Lys Glu Gly Arg Gln Leu Arg Ile
```

```
100
                                105
Lys Leu Glu Met Ala Met Lys Glu Ser Asp Pro Leu Lys Gln Lys Gln
                                                 125
                            120
Ser Leu Pro Leu Gln Lys Glu Ala Leu Glu Ala Asn Val Thr Gln Asp
                        135
Leu Lys Leu Pro Gly Phe Val Glu Glu Ser Cys Glu His Thr Asp Gln
                                        155
                    150
Phe Gln Leu Ser Ser Gln Met His Glu Ser Ile Arg Glu Tyr Leu Val
                                    170
Lys Arg Gln Phe Ser Thr Lys Glu Asp Thr Asn Asn Lys Glu Gln Gly
                                185
Val Val Ile Asp Ser Leu Lys Leu Ser Glu Glu Met Lys Pro Asn Leu
                            200
                                                 205
Asp Gly Val Asp Leu Phe Asn Asn Gly Gly Ser Gly Asn Gly Glu Thr
                                             220
                        215
Lys Thr Gly Leu Arg Leu Lys Ala Ile Asn Leu Pro Leu Glu Asn Glu
                                        235
                    230
Val Thr Glu Ile Ser Ala Leu Gln Val His Leu Asp Glu Phe Gln Lys
                                    250
Ile Leu Trp Lys Glu Arg Glu Met Arg Thr Ala Leu Glu Lys Glu Ile
                                265
Glu Arg Leu Glu Ser Ala Leu Ser Leu Trp Lys Trp Lys Tyr Glu Glu
        275
                            280
Leu Lys Glu Ser Lys Pro Lys Asn Val Lys Glu Phe Asp Ile Leu Leu
                        295
Gly Gln His Asn Asp
305
<210> 2597
<211> 631
<212> DNA
<213> Homo sapiens
<400> 2597
ccatgggtgg gaatgcaaga gacacactct agacttacta gaggagcaag agcaggactt
ggctgcacct gcagctgagg gttagcagga attaggagat aacagtagaa tagggctaga
120
ctgaaaaggc ctttgatgcc aggttaggaa atttacattt tatccacaaa atccaaaatcc
180
tcctttaata atgagatgtc tttacaagtt tttgggcaag agtggtatgg ctgacctggt
gtcctgggaa ggaactgtgt ggggatggtg tgcaggactt acctagggtg ggaaaggcac
aagcagcatg gggctgtggc agctaccaga ggtaaaggga catttcaggg aaagacttgg
caggacaaga ccttccttgg atggatggat gaataccaga aacagggacc caagagaaag
gccgagtttc atagggagag aagatgggtc atgtatgagg catgttgagc ttgtactgat
ggtgagacgt ccagtcgaca gtactaccca ctggccagtg agaaatgtgg gaccagggtt
caggaggaaa ctggggccgg aaatgagcat ttggaaggcg ccagggtgga agcgggtggt
600
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```
tcactccacg agtgctattt cacttacgcg t
 631
 <210> 2598
 <211> 108
 <212> PRT
 <213> Homo sapiens
 <400> 2598
Met Gly Leu Trp Gln Leu Pro Glu Val Lys Gly His Phe Arg Glu Arg
Leu Gly Arg Thr Arg Pro Ser Leu Asp Gly Trp Met Asn Thr Arg Asn
Arg Asp Pro Arg Glu Arg Pro Ser Phe Ile Gly Arg Glu Asp Gly Ser
                             40
Cys Met Arg His Val Glu Leu Val Leu Met Val Arg Arg Pro Val Asp
Ser Thr Thr His Trp Pro Val Arg Asn Val Gly Pro Gly Phe Arg Arg
                     70
                                         75
Lys Leu Gly Pro Glu Met Ser Ile Trp Lys Ala Pro Gly Trp Lys Arg
                 85
                                     90
Val Val His Ser Thr Ser Ala Ile Ser Leu Thr Arg
            100
                                 105
<210> 2599
<211> 356
<212> DNA
<213> Homo sapiens
<400> 2599
nagatettat acagggacgt gatgttggag aactactgga accttgtttc tetgggactg
tgtcattttg atatgaatat tatctccatg ttggaggaag ggaaagagcc ctggactgtg
aagagetgtg tgaaaatage aagaaaacea agaacgeggg aatgtgteaa aggegtggte
acagatatco otoctaaatg tacaatcaag gatttgotac caaaagagaa gagcagtaca
240
gaagcagtat tccacacagt ggtgttggaa agacacgaaa gccctgacat tqaaqacttt
tccttcaagg aaccccagaa aaatgtgcat gattttgagt gtcaatggag agatgn
<210> 2600
<211> 118
<212> PRT
<213> Homo sapiens
<400> 2600
Xaa Ile Leu Tyr Arg Asp Val Met Leu Glu Asn Tyr Trp Asn Leu Val
Ser Leu Gly Leu Cys His Phe Asp Met Asn Ile Ile Ser Met Leu Glu
            20
                                25
Glu Gly Lys Glu Pro Trp Thr Val Lys Ser Cys Val Lys Ile Ala Arg
```

```
40
Lys Pro Arg Thr Arg Glu Cys Val Lys Gly Val Val Thr Asp Ile Pro
Pro Lys Cys Thr Ile Lys Asp Leu Leu Pro Lys Glu Lys Ser Ser Thr
                    70
Glu Ala Val Phe His Thr Val Val Leu Glu Arg His Glu Ser Pro Asp
                85
                                    90
Ile Glu Asp Phe Ser Phe Lys Glu Pro Gln Lys Asn Val His Asp Phe
        · 100
                                105
Glu Cys Gln Trp Arg Asp
        115
<210> 2601
<211> 329
<212> DNA
<213> Homo sapiens
<400> 2601
gegeegatea tgatetaegg egaegaegte acceaectge teaecgaaga aggeategee
tacttgtaca aggcgcgttc cctggaagag cgccaagcga tgatcgccgg cggtggtggg
gtcaccgcct tcggcttgcg ccacaacccc aaggacactg cgcgcatgcg ccgcgaaggc
ttgatcgcct tgcccgaaga cctcggtatc cgccgcaccg acgccacccg cgaactgttg
geegecaaga gegtggeega eetggtggag tggteeggtg gettgtgcaa eeegeeegee
aagttcagga gctggtaaat gcgcgccct
329
<210> 2602
<211> 105
<212> PRT
<213> Homo sapiens
<400> 2602
Ala Pro Ile Met Ile Tyr Gly Asp Asp Val Thr His Leu Leu Thr Glu
                                    10
Glu Gly Ile Ala Tyr Leu Tyr Lys Ala Arg Ser Leu Glu Glu Arg Gln
Ala Met Ile Ala Gly Gly Gly Val Thr Ala Phe Gly Leu Arg His
Asn Pro Lys Asp Thr Ala Arg Met Arg Arg Glu Gly Leu Ile Ala Leu
                                            60
Pro Glu Asp Leu Gly Ile Arg Arg Thr Asp Ala Thr Arg Glu Leu Leu
Ala Ala Lys Ser Val Ala Asp Leu Val Glu Trp Ser Gly Gly Leu Cys
               85
Asn Pro Pro Ala Lys Phe Arg Ser Trp
                                105
<210> 2603
<211> 423
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<212> DNA
<213> Homo sapiens
<400> 2603
tcatgatcca ttgctctacc ctttacggtt gtgcacctac gcccaggtcg gtggtcagga
gcatcggttc ggtggtaccg aggtcgagga cttccttcac gccgttgttc gcggagggca
ggttgtggta agtggtcagg tgggccacga tctgggcact gatcacctcg gtgaaatcga
agetetggtt accetgageg gtegeegaca egacaeggte cacaeeggag accagaeega
tctcggagat gatcgcgtaa ccttcattgt cgtagaggat cttgcacgca tcgatgatgc
gettgatete ettggeagtg aagatgattt ecateggggt gttggeegae agataetgae
cggagctggt ggtcacctgg gtggaatcca ggtcatccgg aaccgggttc aggttgtccg
420
cgg
423
<210> 2604
<211> 103
<212> PRT
<213> Homo sapiens
<400> 2604
Met Glu Ile Ile Phe Thr Ala Lys Glu Ile Lys Arg Ile Ile Asp Ala
1
Cys Lys Ile Leu Tyr Asp Asn Glu Gly Tyr Ala Ile Ile Ser Glu Ile
                                25
            20
Gly Leu Val Ser Gly Val Asp Arg Val Val Ser Ala Thr Ala Gln Gly
Asn Gln Ser Phe Asp Phe Thr Glu Val Ile Ser Ala Gln Ile Val Ala
His Leu Thr Thr Tyr His Asn Leu Pro Ser Ala Asn Asn Gly Val Lys
                                        75
                    70
Glu Val Leu Asp Leu Gly Thr Thr Glu Pro Met Leu Leu Thr Thr Asp
                                    90
                85
Leu Gly Val Gly Ala Gln Pro
            100
<210> 2605
<211> 354
<212> DNA
<213> Homo sapiens
<400> 2605
ngggagggag ggcatgtcaa aagcgactgt atccagaggg tttgatttaa acatttttca
aaacatatgt ggcaaacagc ggggggaggg gatctcacca acgtttttct ccacttcttc
tttgcatgct gggacctgtt ccactttcaa aatgtgtcat tttggaagga aagggaggaa
180
```

```
caactacttg aaaggaatac acgtcagtat gagccctttc tcctcagcag aaggttgccc
caaagtacct cctctgaggc gagagaaagg agagaggagg agagacagct ttcatcaaat
qqqqcaccca qqactctagg gagagaggca cgttctcaca aaggcccttt gagc
354
<210> 2606
<211> 101
<212> PRT
<213> Homo sapiens
<400> 2606
Met Ser Lys Ala Thr Val Ser Arg Gly Phe Asp Leu Asn Ile Phe Gln
                                    10
Asn Ile Cys Gly Lys Gln Arg Gly Glu Gly Ile Ser Pro Thr Phe Phe
                                25
Ser Thr Ser Ser Leu His Ala Gly Thr Cys Ser Thr Phe Lys Met Cys
                            40
His Phe Gly Arg Lys Gly Arg Asn Asn Tyr Leu Lys Gly Ile His Val
Ser Met Ser Pro Phe Ser Ser Ala Glu Gly Cys Pro Lys Val Pro Pro
Leu Arg Arg Glu Lys Gly Glu Arg Arg Arg Asp Ser Phe His Gln Met
Gly His Pro Gly Leu
            100
<210> 2607
<211> 297
<212> DNA
<213> Homo sapiens
<400> 2607
tgatcaagaa caatgatacg atatcctaac caacagagga agcaacggaa gttgttgttg
tttttatgct gtttttttt tttgagaacg gatcttgccc ctgcccccag gccggaatgg
atgacatgga cagaaccccg tcggaaaaaa gccggaatgt gcaaacccaa attcccacca
cacgggggcc ctaacaattg gatccatccc cnaaaaaanc cntnncaaaa aaagntaaaa
acttttttt ttttaaannn anacccccaa aaaaaccaaa aaaaaaaatt taaaaaa
297
<210> 2608
<211> 95
<212> PRT
<213> Homo sapiens
<400> 2608
Met Ile Arg Tyr Pro Asn Gln Gln Arg Lys Gln Arg Lys Leu Leu Leu
                                    10
                 5
Phe Leu Cys Cys Phe Phe Phe Leu Arg Thr Asp Leu Ala Pro Ala Pro
```

```
25
Arg Pro Glu Trp Met Thr Trp Thr Glu Pro Arg Arg Lys Lys Ala Gly
                            40
Met Cys Lys Pro Lys Phe Pro Pro His Gly Gly Pro Asn Asn Trp Ile
His Pro Xaa Lys Xaa Pro Xaa Gln Lys Lys Xaa Lys Thr Phe Phe Phe
                    70
Leu Xaa Xaa Xaa Pro Gln Lys Asn Gln Lys Lys Phe Lys Lys
<210> 2609
<211> 305
<212> DNA
<213> Homo sapiens
<400> 2609
negecategg catgatgtca ggcaaagatg atcetggcat ggcaaaggta taeggttttg
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caattgccta cgaaaaaatt tttttttcc cccccaaaaa acacccccc ctcgcatctg
tgaaagttct acctcggggt cgtcatctcg gctgtcatcg tcggcaaatc actcagctgg
ceqtaccett egteategee egggecaceg acetegaegg eneagegtge aeggeaaega
ccacc
305
<210> 2610
<211> 98
<212> PRT
<213> Homo sapiens
<400> 2610
Met Met Ser Gly Lys Asp Pro Gly Met Ala Lys Val Tyr Gly Phe
Val Asp Thr Ser Leu Thr Ile Pro Ile Arg Ser Ser Gly Asp Pro Cys
                                25
Val Pro Trp Thr Pro Ile Ala Tyr Glu Lys Ile Phe Phe Pro Pro
                            40
Lys Lys His Pro Pro Leu Ala Ser Val Lys Val Leu Pro Arg Gly Arg
His Leu Gly Cys His Arg Arg Gln Ile Thr Gln Leu Ala Val Pro Phe
                                        75
Val Ile Ala Arg Ala Thr Asp Leu Asp Gly Xaa Ala Cys Thr Ala Thr
               85
Thr Thr
<210> 2611
<211> 342
<212> DNA
<213> Homo sapiens
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<400> 2611
geogeogega tegaeggega etectogace agetgggtgt ceageteget geaaaceget
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acgcccagcg ccaccgctgt cggagctcag gtgcgccgcg tcgaggtggc aacagccaac
ggcaccagca caattegett egaccagece ggcaageege tgaeggegge getgeeetae
ggcgagacet catgggteeg gtteacegeg aceggeaceg acgaeggete ecceggegtg
300
cagtteggea teacegactt eteegtgacg cagtacgacg eg
<210> 2612
<211> 114
<212> PRT
<213> Homo sapiens
<400> 2612
Ala Ala Ile Asp Gly Asp Ser Ser Thr Ser Trp Val Ser Ser Ser
Leu Gln Thr Ala Val Gly Gln Trp Leu Gln Val Asp Phe Asp His Pro
                                25
Val Thr Asn Ala Thr Ile Thr Leu Thr Pro Ser Ala Thr Ala Val Gly
Ala Gln Val Arg Arg Val Glu Val Ala Thr Ala Asn Gly Thr Ser Thr
Ile Arg Phe Asp Gln Pro Gly Lys Pro Leu Thr Ala Ala Leu Pro Tyr
Gly Glu Thr Ser Trp Val Arg Phe Thr Ala Thr Gly Thr Asp Asp Gly
                                    90
                85
Ser Pro Gly Val Gln Phe Gly Ile Thr Asp Phe Ser Val Thr Gln Tyr
            100
                                105
Asp Ala
<210> 2613 -
<211> 414
<212> DNA
<213> Homo sapiens
<400> 2613
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tatgccccta ctgggaaggg ccaagtgggc aggcagagtc tggggtggag cgaggtgggg
ctgggaagca ctcctgcttt tctgctgccc cagaacgaat gcaagttctg gcagcttctc
ctcctcctgg gaggaggaaa ggagggctcg cctccaggtc tcaggctgag ggagtgggct
300
```

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ggagaccete tagatggeca geagaggetg geetetgtga gaaggettee ttgegtgaet
360
ctggggcccc tcccaggctc tcctcgtggc aggcagggac ttgggccagc atgg
414
<210> 2614
<211> 107
<212> PRT
<213> Homo sapiens
<400> 2614
Met Val Leu Cys Leu Met Phe Ser Arg Tyr Ala Pro Thr Gly Lys Gly
                                    10
Gln Val Gly Arg Gln Ser Leu Gly Trp Ser Glu Val Gly Leu Gly Ser
Thr Pro Ala Phe Leu Pro Gln Asn Glu Cys Lys Phe Trp Gln Leu
                            40
Leu Leu Leu Gly Gly Gly Lys Glu Gly Ser Pro Pro Gly Leu Arg
                        55
Leu Arg Glu Trp Ala Gly Asp Pro Leu Asp Gly Gln Gln Arg Leu Ala
                    70
                                        75
Ser Val Arg Arg Leu Pro Cys Val Thr Leu Gly Pro Leu Pro Gly Ser
                                    90
Pro Arg Gly Arg Gln Gly Leu Gly Pro Ala Trp
<210> 2615
<211> 394
<212> DNA
<213> Homo sapiens
<400> 2615
nnngeegeeg eeeteggeeg eagegegett ettttgegen negaegteag eeagaaggeg
gacgtcgacg ccatgctgaa ggaaacgctg gcccagttcg gccacatcga tatcctcgtc
120
aacaatgegg gegteaegea tgeggeegat tteetegaeg tgtgegaaga egatttegae
egggteatge geattaacet gaaategatg tteetgtgeg geeaggeege ggegegegag
atggtcaagc gcaacagcgg ctgcatcatc aacatgtcca gcgtgaatgc ggaactggcc
attccgaacc aggtgccgta cgtggtgtcg aaaggcgcca tcaaccagct gaccaaggtc
atggccttga acctggcgcc gcacggtgcg cgct
<210> 2616
<211> 131
<212> PRT
<213> Homo sapiens
<400> 2616
Xaa Ala Ala Ala Leu Gly Arg Ser Ala Leu Leu Leu Arg Xaa Asp Val
```

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1
                                     10
Ser Gln Lys Ala Asp Val Asp Ala Met Leu Lys Glu Thr Leu Ala Gln
                                 25
Phe Gly His Ile Asp Ile Leu Val Asn Asn Ala Gly Val Thr His Ala
Ala Asp Phe Leu Asp Val Cys Glu Asp Asp Phe Asp Arg Val Met Arg
Ile Asn Leu Lys Ser Met Phe Leu Cys Gly Gln Ala Ala Ala Arg Glu
Met Val Lys Arg Asn Ser Gly Cys Ile Ile Asn Met Ser Ser Val Asn
                                     90
                85
Ala Glu Leu Ala Ile Pro Asn Gln Val Pro Tyr Val Val Ser Lys Gly
                                105
Ala Ile Asn Gln Leu Thr Lys Val Met Ala Leu Asn Leu Ala Pro His
Gly Ala Arg
    130
<210> 2617
<211> 513
<212> DNA
<213> Homo sapiens
<400> 2617
naccggttgg catcatgctc acagcactgg gggttccctt ctttcttttc ctcctcagaa
agacattgtg agatgggaaa tatcatggaa acacctatac tttccggctc ccacttgaac
gtcaccttgg gaaatcacaa gattctcaat gacgtctccg tatcattcca agcgggagtt
atgcacgcca tacttggccc caacggttct gggaagacca ccctggtacg cacgttatgc
ggagecetet ecceegagte ggggagegte aaattegatg gaacggatet atceaegatg
tecgeatect gtategegeg tegtattgeg ategtetgge agagegegae egeteeetet
gaceteaceg taegteacet egitggetae gggagatatg eccaeacace giggiggeag
ataagggaca ccagcgccga cagccatgtg gaacaagcaa tggagctggc cgatgtcacg
tgcttcgccg atcgacgcgt caccactctc tca
513
<210> 2618
<211> 171
<212> PRT
<213> Homo sapiens
Xaa Arg Leu Ala Ser Cys Ser Gln His Trp Gly Phe Pro Ser Phe Phe
Ser Ser Ser Glu Arg His Cys Glu Met Gly Asn Ile Met Glu Thr Pro
Ile Leu Ser Gly Ser His Leu Asn Val Thr Leu Gly Asn His Lys Ile
```

```
40
Leu Asn Asp Val Ser Val Ser Phe Gln Ala Gly Val Met His Ala Ile
                                            60
Leu Gly Pro Asn Gly Ser Gly Lys Thr Thr Leu Val Arg Thr Leu Cys
                                        75
                    70
Gly Ala Leu Ser Pro Glu Ser Gly Ser Val Lys Phe Asp Gly Thr Asp
                                    90
Leu Ser Thr Met Ser Ala Ser Cys Ile Ala Arg Arg Ile Ala Ile Val
                                                    110
Trp Gln Ser Ala Thr Ala Pro Ser Asp Leu Thr Val Arg His Leu Val
                            120
       115
Gly Tyr Gly Arg Tyr Ala His Thr Pro Trp Trp Gln Ile Arg Asp Thr
                                            140
                        135
Ser Ala Asp Ser His Val Glu Gln Ala Met Glu Leu Ala Asp Val Thr
                                        155
                   150
Cys Phe Ala Asp Arg Arg Val Thr Thr Leu Ser
               165
<210> 2619
<211> 348
<212> DNA
<213> Homo sapiens
<400> 2619
nnaaatttcg acgaccttga ggttttcctc aagctgttgc cgcgttcggc anccggggaa
cggatgaacc cgtacaactc ggtgtggagc ggtgtgaccg acggtgacgg gccgcaggaa
cagcacgtca ttttccttga taacggtcgt accgacgtgc ttgccgacac ccttggtcgc
gaagtgttgc ggtgcatccg gtgtgcttcg tgtatcaata tctgcccggt ttacgagcgg
gegggeggte accettaegg eteggtgtae eeegggeega ttggtgeggt geteaateeg
cagctgcggg gcgtggagca tcccgtcgat cgtggtctgc catacgcg
<210> 2620
<211> 116
<212> PRT
<213> Homo sapiens
<400> 2620
Xaa Asn Phe Asp Asp Leu Glu Val Phe Leu Lys Leu Leu Pro Arg Ser
                                    10
Ala Xaa Gly Glu Arg Met Asn Pro Tyr Asn Ser Val Trp Ser Gly Val
                                25
Thr Asp Gly Asp Gly Pro Gln Glu Gln His Val Ile Phe Leu Asp Asn
                            40
Gly Arg Thr Asp Val Leu Ala Asp Thr Leu Gly Arg Glu Val Leu Arg
                        55
Cys Ile Arg Cys Ala Ser Cys Ile Asn Ile Cys Pro Val Tyr Glu Arg
                    70
Ala Gly Gly His Pro Tyr Gly Ser Val Tyr Pro Gly Pro Ile Gly Ala
```

```
85
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Asn Ser Gln Phe Asn Tyr Gly Met Gln Pro Leu Met Tyr Ser Val Gln
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Glu Ala Leu Asn Ala Arg Pro Trp Trp Ile Arg Met Gly Thr Asp Ile
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Pro Tyr Leu Ala Cys Tyr Ser Leu Ser Ile Thr Ile Leu Leu Leu Asn
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Gly Ser Thr Ala Asn Tyr Leu Gly Trp Ala Ile Met His Ala Ser Pro
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Gln Lys Arg Leu Asp Lys Glu Thr Glu Lys Lys Arg Arg Thr Glu Glu
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Ser Asn Val Asp Cys Pro Pro Glu Ala Gly Asp Phe Arg Ala Gln Gln
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Cys Ser Ala His Asn Asp Val Lys His His Gly Gln Phe Tyr Glu Trp
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Glu Phe Cys Met Asp Tyr Ser Glu Val Pro Asn Phe Ser Glu Pro Asn
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Pro Glu Tyr Ser Thr Gln Gln Ala Pro Asn Lys Ala Val Gln Asn Asp
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Pro Ala Ser Glu Asn Gln Asn Gly Asn Gly Met Ser Ala Pro Pro Gly
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Phe Arg Val Val Ala His Ile Pro Leu Ile Leu Pro Pro Thr His Pro
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Pro Gln Met Pro Pro Tyr Ala Phe Ala His Pro Pro Phe Pro Leu Pro
Pro Val Arg Pro Val Phe Asn Asn Phe Pro Leu Asn Met Gly Pro Ile
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Pro Ala Pro Tyr Val Pro Pro Leu Pro Asn Val Arg Val Asn Tyr Asp
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Asn Ser Gln His Met Phe Glu Val Leu Ala Ala Met Asn His Arg Ser
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Leu Ile Leu Leu Asp Glu Cys Ser Lys Val Val Leu Asp Asn Ile His
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Gly Cys Pro Leu Arg Ile Met Ile Asn Ile Leu Gln Ser Cys Lys Asp
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Leu Gln Tyr His Asn Leu Asp Leu Phe Lys Gly Leu Ala Asp Tyr Val
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Ala Ala Thr Phe Asp Ile Trp Lys Phe Arg Lys Val Leu Phe Ile Leu
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Phe Met Lys Arg Ile Val Glu Asp Pro Glu Ser Leu Asn Met Lys Asn
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Gly Tyr Leu His Thr Ile Ser Ser Glu Asn Leu Leu Asp Ala Val Tyr
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Ser Phe Cys Leu Met Asn Tyr Phe Pro Leu Ala Pro Phe Asn Gln Leu
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Leu Gln Lys Asp Ile Ile Ser Glu Leu Leu Thr Ser Asp Met Lys
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Asn Ala Tyr Lys Leu His Thr Leu Asp Thr Cys Leu Lys Leu Asp Asp
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Thr Val Tyr Leu Arg Asp Ile Ala Leu Ser Leu Pro Gln Leu Pro Arg
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His Asn Tyr His Ile Asp Phe Glu Ile Arg Met Asp Thr Asn Arg Asn
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Gln Val Leu Pro Leu Ser Asp Val Asp Thr Thr Ser Ala Thr Asp Ile
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Gln Arg Val Ala Val Leu Cys Val Ser Arg Ser Ala Tyr Cys Leu Gly
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Leu Glu Met Glu Asp Ala Val Thr Phe Leu Lys Thr Lys Ile Tyr Ser
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Pro Tyr Leu Ala Cys Tyr Ser Leu Ser Val Thr Ile Leu Leu Leu Asn
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Phe Leu Arg Ser His Cys Phe Thr Gln Ala Met Leu Ser Gln Pro Arg
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Thr Gly Leu Leu Thr Val Leu Val Ala Leu Thr Tyr Ile Met Ala
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Leu Leu Tyr Glu Glu Pro Phe Thr Ala Glu Ile Tyr Arg Gln Lys Ala
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Ser Gly Ser His Lys Arg Ser
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Thr Arg His Phe Lys Glu Ser Ile Lys Phe Ile His Glu Cys Arg Leu
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His His Glu Lys Leu Ser Val Phe Cys Trp Thr Cys Lys Lys Cys Ile
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Thr	Ser		Tyr	GIU	Tyr	Arg		GIU	met	vaı	HIS	365	Ser	Cys	Àsn
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ASD	370	1111	гур	ASII	TTE	375	Arg	Gru	FILE	ALG	380	лэр	1110	O1u	,,,,
Glv	-	Cvs	Trn	Glv	ጥህም		Ara	Phe	Phe	Ara		Asp	Leu	Leu	Ala
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                 5
Arg Glu Thr Cys His Gln Asp Thr Ala Arg Ser Ser Lys Gly Ala Ser
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20
Met Leu Cys Ala Ala Ala Arg Leu Cys Pro Glu Glu Ser Gln Gly Thr
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Leu Val Ser Ala Ala Ala Ala Ser Arg Pro Trp Met Ala Arg Cys Ala
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Val Gly Arg His Arg Gly Cys Thr Arg Thr Gln Pro Asp Leu Gly Gln
Phe Ala Pro Thr Leu Leu His Ser Arg Gly Pro Gly Ser Thr Cys Gln
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Cys Gly Ser Gln Asn Ala Gln Ala Lys Tyr Arg Asp Gln Leu Thr Ile
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Gln Val Glu Pro Glu Ala Trp Ala Gly Ala Ser Asn Cys Pro Pro Val
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cccggaggtc tgtggctgag gtgtaccttg gctttgttgc ctggaactgc tctgactctg
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agettecetg ccaggaaage taaggagtag gagttgttet tggaaacaaa tgccgagcga
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Ser Arg Gly Gln Met Thr Gln Thr His Arg Ser Ala Phe Val Ser Lys
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35
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 Asn Asn Ser Tyr Ser Leu Ala Phe Leu Ala Gly Lys Leu Asn Ser Lys
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 Val Glu Arg Ser Gln Ser Cys Ser Asp Thr Ala Gln Glu Arg Ala Lys
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                                         75
 Ser Arg Val Arg Ala Val Pro Gly Asn Lys Ala Lys Val His Leu Ser
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 His Arg Pro Pro Gly Leu Val Arg Leu Ala Pro Ser Pro Pro Leu His
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Met Val Met Lys
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totgaaaatg otgtootgat cottotgata cactgtgaca cotacotoca caccoccatg
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Val Val Ile Phe Val Val Phe Leu Met Ala Leu Ser Glu Asn Ala Val
                            40
Leu Ile Leu Leu Ile His Cys Asp Thr Tyr Leu His Thr Pro Met Tyr
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Phe Phe Ile Ser Gln Leu Ser Leu Met Asp Met Ala Tyr Ile Ser Val
Thr Val Pro Lys Met Leu Leu Asp Gln Val Met Gly Val Asn Lys Ile
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Ser Ala Pro Glu Cys Gly Met Gln Met Phe Leu Tyr Leu Thr Leu Ala
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Gly Ser Glu Phe Phe Leu Leu Ala Thr Met Ala Tyr Asp Arg Tyr Val
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Ala Ile Cys His Pro Leu Arg Tyr Pro Val Leu Met Asn His Arg Val
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Cys Leu Phe Leu Ala
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Ala Gly Met Ala Gln Leu Arg Glu Leu Tyr Leu Thr Gly Asn Arg Leu
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Arg Ser Arg Ala Leu Gly Pro Arg Ala Trp Val Asp Leu Ala His Leu
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Gln Leu Leu Asp Ile Ala Gly Asn Gln Leu Thr Glu Ile Pro Glu Gly
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Leu Pro Pro Ser Leu Glu Tyr Leu Tyr Leu Gln Asn Asn Lys Ile Ser
                                    90
Ala Val Pro Ala Ser Ala Phe Asp Ser Thr Pro Asn Leu Lys Gly Ile
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Phe Leu Arg Phe Asn Lys Leu Ala Val Gly Ser Val Val Glu Ser Ala
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Phe Arg
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180

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tcattctgcc actgcaaagc tggtgtagcc atgctggtga gaaaaatcct gttcaacctg
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Leu Thr Lys Leu Pro Arg Leu Val Ser Asn Ser Trp Pro Gln Glu Ile
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Asp Lys Leu Gly Gly Arg Val Ala Ser
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anagecagee acateetgat etetgtggat gggaaggtet acetgtetgg tttgegeage
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Val Asp Gly Lys Val Tyr Leu Ser Gly Leu Arg Ser Asn Leu Ser Met
Ile Ser His Gly Gln Arg Gln Arg Val His Asp Phe Pro Lys Tyr
Ser Val Lys Val Leu Pro Trp Leu Ser Pro Glu Val Leu Gln Gln Asn
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                85
Leu Gln Gly Tyr Asp Ala Lys Ser Asp Ile Tyr Ser Val Gly Ile Thr
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                                                     110
            100
Ala Cys Glu Leu Ala Asn Gly His Val Pro Phe Lys Asp Met Pro Ala
                            120
                                                125
Thr Gln Met Leu Leu Glu Lys Leu Asn Gly Thr Val Pro Cys Leu Leu
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                                            140
Asp Thr Ser Thr Ile Pro Ala Glu Glu Leu Thr Met Ser Pro Ser Arg
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                    150
Ser Val Ala Asn Ser Gly Leu Ser Asp Ser Leu Thr Thr Ser Thr Pro
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420
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Glu Thr Leu Asp Leu Asn Tyr Asn Lys Leu Gln Glu Phe Pro Val Ala
Ile Arg Thr Leu Gly Arg Leu Gln Glu Leu Gly Phe His Asn Asn Asn
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Ile Lys Ala Ile Pro Glu Lys Ala Phe Met Gly Asn Pro Leu Leu Gln
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Thr Ile His Phe Tyr Asp Asn Pro Ile Gln Phe Val Gly Arg Ser Ala
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Phe Gln Tyr Leu Pro Lys Leu His Thr Leu Ser Leu Asn Gly Ala Met
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Asp Ile Gln Glu Phe Pro Asp Leu Lys Gly Thr Thr Ser Leu Glu Ile
                            120
                                                125
Leu Thr Leu Thr Arg Ala Gly Ile Arg Leu Leu Pro Ser Gly Met Cys
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                                            140
Gln Gln Leu Pro Arg Leu Arg Val Leu Glu Leu Ser His Asn Gln Ile
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Glu Glu Leu Pro Ser Leu His Arg Cys Gln Lys Leu Glu Glu Ile Gly
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Leu Gln His Asn Arg Ile Trp Glu Ile Gly Ala Asp Thr Phe Ser Gln
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Leu Ser Ser Leu Gln Ala Leu Asp Leu Arg Trp Asn Ala Ile Arg Ser
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Ile His Pro Glu Ala Phe Ser Thr Leu His Ser Leu Val Lys Leu Asp
                                            220
                        215
Leu Thr Asp Asn Gln Leu Thr Thr Leu Pro Leu Ala Gly Leu Gly Gly
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260 265

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360 geggtggaaa tetecetgtg egcagacate accegeaceg geaaagtgaa geeaaceaga

420 gctgtgaaag atcagaggac ctggacctgg ggcccttgtg gacagggtgc catcctgctg

480

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1200

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Val Val Asp Ile Ala His Ser Pro Pro Ala Lys Lys Ser Thr Gly
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Ser Ser Thr Trp Pro Leu Asp Pro Gly Val Glu Val Thr Leu Thr Met
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Lys Ala Ala Ser Gly Ser Thr Gly Asp Gln Lys Val Gln Ile Ser Tyr
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Tyr Gly Pro Lys Thr Pro Pro Val Lys Ala Leu Leu Tyr Leu Thr Ala
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Val Glu Ile Ser Leu Cys Ala Asp Ile Thr Arg Thr Gly Lys Val Lys
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                            120
        115
Pro Thr Arg Ala Val Lys Asp Gln Arg Thr Trp Thr Trp Gly Pro Cys
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Ser	Ser	Ala	Met	Asp	Cys	Glu	Asp	Asp	Glu	Val	Leu	Asp	Ser	Glu	Asp
				165					170					175	
Leu	Gln	Asp	Met	Ser	Leu	Met	Thr	Leu	Ser	Thr	Lys	Thr	Pro	Lys	Asp
		_	180					185					190		
Phe	Phe	Thr	Asn	His	Thr	Leu	Val	Leu	His	Val	Ala	Arg	Ser	Glu	Met
		195					200					205			
Asp	T.vs		Ara	Val	Phe	Gln		Thr	Ara	Glv	Lvs		Ser	Ser	Lvs
	210		5			215				•	220				•
Cve		Val	vai	T.eu	Gly		Lvs	Tro	Pro	Ser	-	Tvr	Leu	Met	Val
225					230		-,-			235		-1-			240
	Gly	Gly	Tare	Uic	Asn	Mat	Acn	Dhe	ጥህም		Glu	د ا ۵	T.e.ii	Δ1 a	
110	Gry	Gry	Бүз	245	ASH	11.00	Yab	1 114	250			7124		255	
Dwa	7.00	Th-	3.00		Pro	C3.	T 011	T10		Tan	Thr	Tla	Car		Lou
PIO	АБР	1111	260	PHE	PIO	GLY	Leu		TIII	Deu	1111	116	270	Dea	neu
•	~ 1	.		.	a 1	+	D	265	.1.	17 1	77-1	Db.		»	c
Asp	Inr		ASI	Leu	Glu	Leu		GIU	Aia	val	val		GIII	ASP	ser
		275	_				280					285	-1		_
		Phe	Arg	Val	Ala		Trp	He	Met	Thr		Asn	Thr	Gin	Pro
_ •				_		295	_				300		_		_
	Gln	Glu	Val	Tyr	Ala	Cys	Ser	Ile	Phe		Asn	Glu	Asp	Phe	
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Lys	Ser	Val	Thr		Leu	Ala	Met	Lys		Lys	Cys	Lys	Leu		Ile
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Cys	Pro	Glu	Glu	Glu	Asn	Met	Asp	Asp	Gln	Trp	Met	Gln	Asp	Glu	Met
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385					390					395					400
Ile	Ser	Gly	Leu	Asp	Ser	Phe	Gly	Asn	Leu	Glu	Val	Ser	Pro	Pro	Val
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Thr	Val	Arg	Gly	Lys	Glu	Tyr	Pro	Leu	Gly	Arg	Ile	Leu	Phe	Gly	Asp
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Ser	Cys	Tyr	Pro	Ser	Asn	Asp	Ser	Arg	Gln	Met	His	Gln	Ala	Leu	Gln
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Asp	Phe	Leu	Ser	Ala	Gln	Gln	Val	Gln	Ala	Pro	Val	Lys	Leu	Tyr	Ser
_	450					455					460	_		_	
Asp	Trp	Leu	Ser	Val	Gly	His	Val	Asp	Glu	Phe	Leu	Ser	Phe	Val	Pro
465					470			•		475					480
	Pro	Asp	Ara	Lvs	Gly	Phe	Arg	Leu	Leu	Leu	Ala	Ser	Pro	Arg	Ser
		· <u>F</u>	·	485	2		3		490					495	
Cve	Tur	Lare	T.211		Gln	Glu	Gln	Gln		Glu	Glv	His	Glv		Ala
Cys	LYL	Lys	500	FIIC	GIII	GIU	GIII	505	no	Olu	CLy	****	510	014	
T		Db -		~1	Ile	· *	T		T 1.00	C1n	c1n	Tare		Tare	λcn
Leu	Leu		GIU	GIY	TTE	Lys		гуѕ	ьys	GIII	GIII		116	пåэ	ASII
	_	515	_	_	_,		520		•••	3	C	525	17- 1	~1	>
TTE		ser	ASN	ьys	Thr		Arg	Giu	nıs	ASII		rne	val	GIU	MI.A
_	530	_	_	_		535	_		•	3	540	.	~1	T	51 -
	Ile	Asp	Trp	Asn	Arg	GIU	Leu	Leu	ьys		GIU	Leu	GIA	ьeu	
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575 570 565 Ser Lys Ala Glu Ala Phe Phe Pro Asn Met Val Asn Met Leu Val Leu 590 585 Gly Lys His Leu Gly Ile Pro Lys Pro Phe Gly Pro Val Ile Asn Gly 605 600 Arg Cys Cys Leu Glu Glu Lys Val Cys Ser Leu Leu Glu Pro Leu Gly 615 610 Leu Gln Cys Thr Phe Ile Asn Asp Phe Phe Thr Tyr His Ile Arg His 635 630 Gly Glu Val His Cys Gly Thr Asn Val Arg Arg Lys Pro Phe Ser Phe 645 650 Lys Trp Trp Asn Met Val Pro 660 <210> 2697 <211> 2468 <212> DNA <213> Homo sapiens <400> 2697 cagggcagcc cgggggaagc gtccgggacc atgtctggag aactaccacc aaacattaac atcaaggaac ctcgatggga tcaaagcact ttcattggac gagccaatca tttcttcact gtaactgacc ccaggaacat tctgttaacc aacgaacaac tcgagagtgc gagaaaaata gtacatgatt acaggcaagg aattgttcct cctggtctta cagaaaatga attgtggaga gcaaagtaca totatgatto agottttoat cotgacactg gtgagaagat gattttgata ggaagaatgt cagcccaggt tcccatgaac atgaccatca caggttgtat gatgacgttt tacaggacta cgccggctgt gctgttctgg cagtggatta accagtcctt caatgccgtc gtcaattaca ccaacagaag tggagacgca cccctcactg tcaatgagtt gggaacagct tacgtttctg caacaactgg tgccgtagca acagctctag gactcaatgc attgaccaag catquetcae caetgatagg acguttigtt coettigetg cegtagetge tgetaattge attaatattc cattaatgag gcaaagggaa ctcaaagttg gcattcccgt cacggatgag aatgggaacc gcttggggga gtcggcgaac gctgcgaaac aagccatcac gcaagttgtc gtgtccagga ttctcatggc agcccctggc atggccatcc ctccattcat tatgaacact ttggaaaaga aagcettttt gaagaggtte eeatggatga gtgeacecat teaagttggg ttagttggct tctgtttggt gtttgctaca cccctgtgtt gtgccctgtt tcctcagaaa agttccatgt ctgtgacaag cttggaggcc gagttgcaag ctaagatcca agagagccat cctgaattgc gacgcgtgta cttcaataag ggattgtaaa gcagggagga aacctctgca 1020

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Gln Arg Asn Arg Asp Phe Leu Leu Ala Leu Glu Arg Asp Arg Leu Lys
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Ser Pro Ile Cys Ile Ala Arg Glu Cys Ser Gly Pro Trp Gly Lys Gly
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Pro Val Thr Asp Glu Ala Gly Gln Arg Leu Gly His Ser Val Thr Ala
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Pro Thr Leu Leu Ala Asp Ile Tyr Met Asp Ser Asp Tyr Arg Lys Gln
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Trp Asp Gln Tyr Val Lys Glu Leu Tyr Glu Gln Glu Cys Asn Gly Glu
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Asp Tyr Val Tyr Leu Arg Gln Arg Arg Asp Leu Asp Met Glu Gly Arg
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Glu Arg Ser Gly Val Ile Arg Val Lys Gln Tyr Lys Gln Ser Leu Ala
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Ile Glu Ser Asp Gly Lys Lys Gly Ser Lys Val Phe Met Tyr Tyr Phe
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Asp Asn Pro Gly Gly Gln Ile Pro Ser Trp Leu Ile Asn Trp Ala Ala
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Lys Thr Gly Gly Gln Gly Ser Asp Ala Thr Leu Leu Phe Val Lys Tyr
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Pro Gly Asp Ile Phe Gly Cys Val Ala Asp Ile Gly Trp Ile Thr Gly
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Tyr Gly Gln Thr His Tyr Tyr His Gln Arg Gln Asn Ser Asp Asp Lys
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Leu Asn Gly Trp Gln Asn Ser Arg Asp Ser Gly Ile Cys Ile Asn Ala
Ser Asn Trp Gln Asp Lys Ser Met Gly Cys Glu Asn Gly His Val Pro
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                                    90
Leu Tyr Ser Ser Ser Ser Val Pro Thr Thr Ile Asn Thr Ile Gly Thr
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                                105
                                                    110
Ser Thr Ser Thr Asn Val Pro Ala Trp Leu Lys Ser Leu Arg Leu His
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Lys Tyr Ala Ala Leu Phe Ser Gln Met Thr Tyr Glu Glu Met Met Ala
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Leu Thr Glu Cys Gln Leu Glu Ala Gln Asn Val Thr Lys Gly Ala Arg
145
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His Lys Ile Val Ile Ser Ile Gln Lys Leu Lys Glu Arg Gln Asn Leu
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Leu Lys Ser Leu Glu Arg Asp Ile Ile Glu Gly Gly Ser Leu Arg Ile
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Pro Leu Gln Glu Leu His Gln Met Ile Leu Thr Pro Ile Lys Ala Tyr
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Ser Ser Pro Ser Thr Thr Pro Glu Ala Arg Arg Arg Glu Pro Gln Ala
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Pro Arg Gln Pro Ser Leu Met Gly Pro Glu Ser Gln Ser Pro Asp Cys
225 230
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Lys Asp Gly Ala Ala Ala Thr Gly Ala Thr Ala Thr Pro Ser Ala Gly
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Ala Ser Gly Gly Leu Gln Pro His Gln Leu Ser Ser Cys Asp Gly Glu
          260 265 270
Leu Ala Val Ala Pro Leu Pro Glu Gly Asp Leu Pro Gly Gln Phe Thr
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Arg Val Met Gly Lys Val Cys Thr Gln Leu Leu Val Ser Arg Pro Asp
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Glu Glu Asn Ile Ser Ser Tyr Leu Gln Leu Ile Asp Lys Cys Leu Ile
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His Glu Ala Phe Thr Glu Thr Gln Lys Lys Arg Leu Leu Ser Trp Lys
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Gln Gln Val Gln Lys Leu Phe Arg Ser Phe Pro Arg Lys Thr Leu Leu
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Asp Ile Ser Gly Tyr Arg Gln Gln Arg Asn Arg Gly Phe Gly Gln Ser
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Asn Ser Leu Pro Thr Ala Gly Ser Val Gly Gly Met Gly Arg Arg
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Asn Pro Arg Gln Tyr Gln Ile Pro Ser Arg Asn Val Pro Ser Ala Arg
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Leu Gly Leu Leu Gly Thr Ser Gly Phe Val Ser Ser Asn Gln Arg Asn
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Thr Thr Ala Thr Pro Thr Ile Met Lys Gln Gly Arg Gln Asn Leu Trp
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Phe Ala Asn Pro Gly Gly Ser Asn Ser Met Pro Ser Arg Thr His Ser
                        440
Ser Val Gln Arg Thr Arg Ser Leu Pro Val His Thr Ser Pro Gln Asn
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                                     460
Met Leu Met Phe Gln Gln Pro Glu Phe Gln Leu Pro Val Thr Glu Pro
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Asp Ile Asn Asn Arg Leu Glu Ser Leu Cys Leu Ser Met Thr Glu His
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<211> 1221

<212> DNA

<213> Homo sapiens

<400> 2723

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Thr Ile His Met Phe Gly Asp His Thr Asn Arg Val Lys Arg Ile Ala
Thr Ala Pro Met Trp Pro Asn Thr Phe Trp Ser Ala Ala Glu Asp Gly
Leu Ile Arg Gln Tyr Asp Leu Arg Glu Asn Ser Lys His Ser Glu Val
    50
Leu Ile Asp Leu Thr Glu Tyr Cys Gly Gln Leu Val Glu Ala Lys Cys
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75
Leu Thr Val Asn Pro Gln Asp Asn Asn Cys Leu Ala Val Gly Ala Ser
                                   90
Gly Pro Phe Val Arg Leu Tyr Asp Ile Arg Met Ile His Asn His Arg
                               105
Lys Ser Met Lys Gln Ser Pro Ser Ala Gly Val His Thr Phe Cys Asp
                           120
Arg Gln Lys Pro Leu Pro Asp Gly Ala Ala Gln Tyr Tyr Val Ala Gly
                                           140
                       135
His Leu Pro Val Lys Leu Pro Asp Tyr Asn Asn Arg Leu Arg Val Leu
                                      155
Val Ala Thr Tyr Val Thr Phe Ser Pro Asn Gly Thr Glu Leu Leu Val
              165
                                  170
Asn Met Gly Gly Glu Gln Val Tyr Leu Phe Asp Leu Thr Tyr Lys Gln
                              185
Arg Pro Tyr Thr Phe Leu Leu Pro Arg Lys Cys His Ser Ser Gly Glu
                           200
Val Gln Asn Gly Lys Met Ser Thr Asn Gly Val Ser Asn Gly Val Ser
                                           220
                       215
Asn Gly Leu His Leu His Ser Asn Gly Phe Arg Leu Pro Glu Ser Arg
                                      235
                  230
Gly His Val Ser Pro Gln Val Glu Leu Pro Pro Tyr Leu Glu Arg Val
                                   250
              245
Lys Gln Gln Ala Asn Glu Ala Phe Ala Cys Gln Gln Trp Thr Gln Ala
                                                   270
                               265
Ile Gln Leu Tyr Ser Lys Ala Val Gln Arg Ala Pro His Asn Ala Met
                           280
Leu Tyr Gly Asn Arg Ala Ala Ala Tyr Met Lys Arg Lys Trp Asp Gly
                                          300
                       295
Asp His Tyr Asp Ala Leu Arg Asp Cys Leu Lys Ala Ile Ser Leu Asn
                                       315
                   310
Pro Cys His Leu Lys Ala His Phe Arg Leu Ala Arg Cys Leu Phe Glu
                                   330
               325
Leu Lys Tyr Val Ala Glu Ala Leu Glu Cys Leu Asp Asp Phe Lys Gly
                               345
           340
Lys Phe Pro Glu Gln Ala His Ser Ser Ala Cys Asp Ala Leu Gly Arg
                           360
       355
Asp Ile Thr Ala Ala Leu Phe Ser Lys Asn Asp Gly Glu Glu Lys Lys
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Gly Pro Gly Gly Gly Ala Pro Val Arg Leu Arg Ser Thr Ser Arg Lys
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Gly Cys Thr Arg
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<211> 856

<212> DNA

<213> Homo sapiens

<400> 2725

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 300
 aaggacattg agcttgagaa gatgaaagct ggtgggaatg ctaagttccg agagttcctg
 360
gagtctcagg aggattacga tccttgctgg tccttgcagg agaagtacaa cagcagagcc
geggeeetet ttagggataa ggtggteget etggeegaag geagagagtg gtetetggag
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cggtagctgc tcctcgtggg gccttagtac agtttccact gggtcctgaa cttagtagat
tgggtttccc acagaattct ccccttcttt gctgttgtga cagctctttt cccagaagtc
agtgggaaaa acagcttttt aaaattgcca aaacaataca agcttttagt aaatttggac
acccatagag ctgtctcaga tagcgcccca ggtaagctcc gcacgccttc caggtgtgca
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Asp Glu Asn Asn Val Cys Phe Glu Cys Gly Ala Phe Asn Pro Gln Trp
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Val Ser Val Thr Tyr Gly Ile Trp Ile Cys Leu Glu Cys Ser Gly Arg
His Arg Gly Leu Gly Val His Leu Ser Phe Val Arg Ser Val Thr Met
Asp Lys Trp Lys Asp Ile Glu Leu Glu Lys Met Lys Ala Gly Gly Asn
Ala Lys Phe Arg Glu Phe Leu Glu Ser Gln Glu Asp Tyr Asp Pro Cys
Trp Ser Leu Gln Glu Lys Tyr Asn Ser Arg Ala Ala Leu Phe Arg
            100
                                105
Asp Lys Val Val Ala Leu Ala Glu Gly Arg Glu Trp Ser Leu Glu Ser
                            120
Ser Pro Ala Gln Asn Trp Thr Pro Pro Gln Pro Arg Thr Leu Pro Ser
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                                            140
                        135
Met Val His Arg
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<211> 1119
<212> DNA
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120
taaatctggt atattaaatt gtgctgtaaa tagatttgta tattttcttt tttgagtact
atgataggtg aaatggtatg actataaaaa ggatttgttt ctttttgtct cctggaatga
catgatgcct ttctagagaa agaaaaattg caggctacag gaaaatgata aaaactactg
gattcattta gactattcga tttaggaagg tacaaccact tctttaacat caagctaaaa
360
gtgggggaaa gtctcagtct cccaggtagg tctcctctca cactgtcctg ggtggcaggc
qctqtttata catqcccqct atcqctctqq ctqcactqta gatcatctqc cqacqqqaca
480
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600
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<210> 2728
<211> 221
<212> PRT
<213> Homo sapiens
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Ile Thr Thr Leu Asp Pro Gly Met Ala Pro Tyr Ile Lys Ser Gly Gly
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Glu Leu Asp Ile Val Val Thr Ser Asn Lys Glu Val Lys Val Ala Ala
                            40
Val Arg Asp Ala Phe Gln Glu Val Phe Gly Leu Ala Val Val Gly
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Glu Ala Gly Gln Ser Asn Ile Ala Pro Gln Pro Val Gly Tyr Ala Ala
                                        75
                    70
Gly Leu Lys Gly Ala Gln Glu Arg Ile Asp Ser Leu Arg Arg Thr Gly
                                    90
Val Ile His Glu Lys Gln Thr Ala Val Ser Val Glu Asn Phe Ile Ala
                                105
            100
Glu Leu Leu Pro Asp Lys Trp Phe Asp Ile Gly Cys Leu Val Val Glu
                            120
Asp Pro Val His Gly Ile His Leu Glu Thr Phe Thr Gln Ala Thr Pro
                                            140
Val Pro Leu Glu Phe Val Gln Gln Ala Gln Ser Leu Thr Pro Gln Asp
                                        155
145
                    150
Tyr Asn Leu Arg Trp Ser Gly Leu Leu Val Thr Val Gly Glu Val Leu
                                    170
                165
Glu Lys Ser Leu Leu Asn Val Ser Arg Thr Asp Trp His Met Ala Phe
                                185
Thr Gly Met Ser Arg Arg Gln Met Ile Tyr Ser Ala Ala Arg Ala Ile
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Ala Gly Met Tyr Lys Gln Arg Leu Pro Pro Arg Thr Val
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                                25
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Leu Gln Lys Leu Leu Asp Tyr Leu Thr Arg Met Met Pro Gly Ser Asp
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Pro Glu Arg Arg Ala Gln Asn Leu Leu Glu Gln Phe Gln Lys Gln Glu
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Val Glu Thr Asp Asn Gly Leu Pro Asn Thr Ile Ser
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ateggtgtca cetgegtgtt teccategae etggecaaga ceaggetgea gaaceageag
aacggccagc gcgtgtacac gagcatgtcc gactgcctca tcaagaccgt ccgctccgag
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gecateaage tggcagecaa egaettette egaeateage tetetaagga egggeagaag
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420
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447
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<212> PRT
<213> Homo sapiens
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Gln Asn Gln Gln Asn Gly Gln Arg Val Tyr Thr Ser Met Ser Asp Cys
Leu Ile Lys Thr Val Arg Ser Glu Gly Tyr Phe Gly Met Tyr Arg Gly
Ala Ala Val Asn Leu Thr Leu Val Thr Pro Glu Lys Ala Ile Lys Leu
                    70
                                        75
Ala Ala Asn Asp Phe Phe Arg His Gln Leu Ser Lys Asp Gly Gln Lys
                                    90
Leu Thr Leu Leu Lys Glu Met Leu Ala Gly Cys Gly Ala Gly Thr Cys
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1380			ctggagccgg		•
1440			ctgcgcaacg		
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Val Ala Thr Thr Arg Gly Asp Gln Glu Ser Ala Glu Ala Asn Lys Phe
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                    215
Gln Val Thr Asp Ser Ala Ala Phe Asn Ala Leu Val Thr Phe Cys Ile
                                 235
                230
Arg Asp Leu Ile Gly Cys Leu Gln Lys Leu Leu Phe Gly Lys Val Ala
             245
Lys Asp Ser Ser Arg Met Leu Gln Pro Ser Ser Ser Pro Leu Trp Gly
                          265
Lys Leu Arg Val Asp Ile Lys Ala Tyr Leu Gly Ser Ala Ile Gln Leu
                      280 285
Val Ser Cys Leu Ser Glu Thr Thr Val Leu Ala Ala Val Leu Arg His
                   295
Ile Ser Val Leu Val Pro Cys Phe Leu Thr Phe Pro Lys Gln Cys Arg
                                 315
                310
Met Leu Leu Lys Arg Met Val Val Val Trp Ser Thr Gly Glu Glu Ser
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Leu Arg Val Leu Ala Phe Leu Val Leu Ser Arg Val Cys Arg His Lys
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Lys Asp Thr Phe Leu Gly Pro Val Leu Lys Gln Met Tyr Ile Thr Tyr
     355 360
Val Arg Asn Cys Lys Phe Thr Ser Pro Gly Ala Leu Pro Phe Ile Ser
                                    380
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Phe Met Gln Trp Thr Leu Thr Glu Leu Leu Ala Leu Glu Pro Gly Val
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                                395
Ala Tyr Gln His Ala Phe Leu Tyr Ile Arg Gln Leu Ala Ile His Leu
            405
                              410
Arg Asn Ala Met Thr Thr Arg Lys Lys Glu Thr Tyr Gln Ser Val Tyr
                          425
Asn Trp Gln Tyr Val His Cys Leu Phe Leu Trp Cys Arg Val Leu Ser
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Thr Ala Gly Pro Ser Glu Ala Leu Gln Pro Leu Val Tyr Pro Leu Ala
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Gln Val Ile Ile Gly Cys Ile Lys Leu Ile Pro Thr Ala Arg Phe Tyr
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Pro Leu Arg Met His Cys Ile Arg Ala Leu Thr Leu Leu Ser Gly Ser
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Ser Gly Ala Phe Ile Pro Val Leu Pro Phe Ile Leu Glu Met Phe Gln
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Gln Val Asp Phe Asn Arg Lys Pro Gly Arg Met Ser Ser Lys Pro Ile
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Asn Phe Ser Val Ile Leu Lys Leu Ser Asn Val Asn Leu Gln Glu Lys
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Ala Tyr Arg Asp Gly Leu Val Glu Gln Leu Tyr Asp Leu Thr Leu Glu
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Tyr Leu His Ser Gln Ala His Cys Ile Gly Phe Pro Glu Leu Val Leu
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Pro Val Val Leu Gln Leu Lys Ser Phe Leu Arg Glu Cys Lys Val Ala
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Asn Tyr Cys Arg Gln Val Gln Gln Leu Leu Gly Lys Val Gln Glu Asn
                      600 605
Ser Ala Tyr Ile Cys Ser Arg Arg Gln Arg Val Ser Phe Gly Val Ser
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610
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Glu Gln Gln Ala Val Glu Ala Trp Glu Lys Leu Thr Arg Glu Glu Gly
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Thr Pro Leu Thr Leu Tyr Tyr Ser His Trp Arg Lys Leu Arg Asp Arg
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                                     650
Glu Ile Gln Leu Glu Ile Ser Gly Lys Glu Arg Val Arg Leu Gly Glu
Gly Thr Trp Leu Glu Asp Leu Asn Phe Pro Glu Ile Lys Arg Arg Lys
Met Ala Asp Arg Lys Asp Glu Asp Arg Lys Gln Phe Lys Asp Leu Phe
                         695
                                             700
Asp Leu Asn Ser Ser Glu Glu Asp Asp Thr Glu Gly Phe Leu Glu Arg
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Gly Ile Leu Gly Pro Leu Ser Thr Arq His Gly Val Glu Asp Asp Glu
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Glu Asp Glu Glu Glu Glu Glu Asp Ser Ser Asn Ser Glu Gly Glu
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                                 745
Trp Ser Trp Asp Gly Asp Pro Asp Ala Glu Ala Gly Leu Ala Pro Gly
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Glu Leu Gln Gln Leu Ala Gln Gly Pro Glu Asp Glu Leu Glu Asp Leu
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gaggtagacg gcatcaaagt gcggatacag atctgggaca ctgcagggca ggagagatac
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ctgacagage tggtgctgca ggcccatagg aaggagetgg aaggceteeg gatgegtgce
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720
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aactettega aaacetgetg gtgetgagte etgtgtgggg caceceacae gacaeeeete
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tototgacco otococtocg gtgcgtttcg tatcaaagct cotcaaacco cgtcccccgt
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<211> 218
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Ser Gly Val Gly Lys Thr Cys Leu Leu Cys Arg Phe Thr Asp Asn Glu
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Phe His Ser Ser His Ile Ser Thr Ile Gly Val Asp Phe Lys Met Lys
Thr Ile Glu Val Asp Gly Ile Lys Val Arg Ile Gln Ile Trp Asp Thr
                        55
Ala Gly Gln Glu Arg Tyr Gln Thr Ile Thr Lys Gln Tyr Tyr Arg Arg
Ala Gln Gly Ile Phe Leu Val Tyr Asp Ile Ser Ser Glu Arg Ser Tyr
                                    90
Gln His Ile Met Lys Trp Val Ser Asp Val Asp Glu Tyr Ala Pro Glu
                                105
            100
Gly Val Gln Lys Ile Leu Ile Gly Asn Lys Ala Asp Glu Gln Lys
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115
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 Arg Gln Val Gly Arg Glu Gln Gly Gln Lys Cys Pro Ser Leu Gln
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Leu Ala Lys Glu Tyr Gly Met Asp Phe Tyr Glu Thr Ser Ala Cys Thr
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Asn Leu Asn Ile Lys Glu Ser Phe Thr Arg Leu Thr Glu Leu Val Leu
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Gln Ala His Arg Lys Glu Leu Glu Gly Leu Arg Met Arg Ala Ser Asn
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                                                     190
Glu Leu Ala Leu Ala Glu Leu Glu Glu Glu Glu Gly Lys Pro Glu Gly
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Pro Ala Asn Ser Ser Lys Thr Cys Trp Cys
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<210> 2738
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<213> Homo sapiens

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Ile Val Asp Gln Cys Glu Arg Leu Gln Leu Gln Ser Ala Ala Ile Thr
Lys Tyr Val Ala Asp Val Leu Pro Gly Lys Asn Gln Arg Ala Val Ser
                        55
Met Ala Ser Ala Ala Arg Glu Leu Val Ile Gln Arg Leu Ser Leu Val
                                        75
                    70
Arg Ser Leu Cys Glu Ser Glu Glu Gln Arg Leu Leu Glu Gln Val His
Gly Glu Glu Glu Arg Ala His Gln Ser Ile Leu Thr Gln Arg Val His
            100
                                105
Trp Ala Glu Ala Leu Gln Lys Leu Asp Thr Ile Arg Thr Gly Leu Val
                           120
Gly Met Leu Thr His Leu Asp Asp Leu Gln Leu Ile Gln Lys Glu Gln
                       135
                                           140
Glu Ile Phe Glu Arg Thr Glu Glu Ala Glu Gly Ile Leu Asp Pro Gln
                   150
                                       155
Glu Ser Glu Met Leu Asn Phe Asn Glu Lys Cys Thr Arg Ser Pro Leu
                                    170
                165
Leu Thr Gln Leu Trp Ala Thr Ala Val Leu Gly Ser Leu Ser Gly Thr
                                                    190
                                185
Glu Asp Ile Arg Ile Asp Glu Arg Thr Val Ser Pro Phe Leu Gln Leu
                            200
Ser Asp Asp Arg Lys Thr Leu Thr Ser Ala Pro Arg Ser Gln Arg Cys
                        215
Ala Asp Gly Pro Glu Arg Phe Asp His Trp Pro Asn Ala Leu Ala Ala
                    230
                                        235
Thr Ser Phe Gln Asn Gly Leu His Ala Trp Met Val Asn Val Gln Asn
                                    250
Ser Cys Ala Tyr Lys Val Gly Val Ala Ser Gly His Leu Pro Arg Lys
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Gly Ser Gly Ser Asp Cys Arg Leu Gly His Asn Ala Phe Ser Trp Val
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Phe Ser Arg Tyr Asp Gln Glu Phe Arg Phe Ser
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<210> 2739
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<212> DNA

<213> Homo sapiens

<400> 2739

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ttcatcttcg gcttctgctg gctgagtccc gcgctgcagg atctgcaagc cacggaggcc 180

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ggegeegact geaggggeac ctegeagtae ceetgegtee aggtetaegt gaacaactet
gagtecaact ctagggeget getgeacage gaegageace ageteetgae caaceceaag
tgctcctata tccctccctg taagagagaa aatcagaaga atttggaaag tgtcatgaat
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а
1501
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Ile Ile Ser Gly Val Val Ser Leu Phe Ile Phe Gly Phe Cys Trp Leu
Ser Pro Ala Leu Gln Asp Leu Gln Ala Thr Glu Ala Asn Cys Thr Val
Leu Ser Val Gln Gln Ile Gly Glu Val Phe Glu Cys Thr Phe Thr Cys
                    70
Gly Ala Asp Cys Arg Gly Thr Ser Gln Tyr Pro Cys Val Gln Val Tyr
                                    90
Val Asn Asn Ser Glu Ser Asn Ser Arg Ala Leu Leu His Ser Asp Glu
                                 105
His Gln Leu Leu Thr Asn Pro Lys Cys Ser Tyr Ile Pro Pro Cys Lys
Arg Glu Asn Gln Lys Asn Leu Glu Ser Val Met Asn Trp Gln Gln Tyr
Trp Lys Asp Glu Ile Gly Ser Gln Pro Phe Thr Cys Tyr Phe Asn Gln
                    150
His Gln Arg Pro Asp Asp Val Leu Leu His Arg Thr His Asp Glu Ile
                                    170
                165
Val Leu Leu His Cys Phe Leu Trp Pro Leu Val Thr Phe Val Val Gly
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Val Leu Ile Val Val Leu Thr Ile Cys Ala Lys Ser Leu Ala Val Lys
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Ala Glu Ala Met Lys Lys Arg Lys Phe Ser
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tectacaaqq actqqtetca qaacatgtat tteaactget cagaagacaa ceccagtega
gagegetget etgtgeetta eteetgttge ttgeetaete etgaceagge agtgateaac
240
actatqtgtg gccaaggtat gcaggccttt gactacttgg aagctagcaa agtcatctac
accaatqqct qtattqacaa gttggtcaac tggatacaca gcaacctatt cttacttggt
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cgaacagcag tgggtgctga aagcagcacc aaatggagat ttggattcca gcccccagt
600
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gacagcccag tgggaagaag caaactccag atgggcagaa qgcagggtgc acaggtggct
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1260
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<211> 163
<212> PRT
<213> Homo sapiens
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Tyr Arg Asp Asp Leu Asp Leu Gln Asn Leu Ile Asp Phe Gly Gln Lys
                                25
Lys Phe Ser Cys Cys Gly Gly Ile Ser Tyr Lys Asp Trp Ser Gln Asn
                            40
Met Tyr Phe Asn Cys Ser Glu Asp Asn Pro Ser Arg Glu Arg Cys Ser
Val Pro Tyr Ser Cys Cys Leu Pro Thr Pro Asp Gln Ala Val Ile Asn
                                        75
Thr Met Cys Gly Gln Gly Met Gln Ala Phe Asp Tyr Leu Glu Ala Ser
                85
                                    90
Lys Val Ile Tyr Thr Asn Gly Cys Ile Asp Lys Leu Val Asn Trp Ile
His Ser Asn Leu Phe Leu Leu Gly Gly Val Ala Leu Gly Leu Ala Ile
                            120
                                                125
Pro Gln Leu Val Gly Ile Leu Leu Ser Gln Ile Leu Val Asn Gln Ile
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135
Lys Asp Gln Ile Lys Leu Gln Leu Tyr Asn Gln Gln His Arg Ala Asp
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Pro Trp Tyr
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<211> 384
<212> DNA
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<211> 69
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<213> Homo sapiens
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Gly Ala Ser Gln Asp Ser Gly Val Gln Ser Pro Pro Gly Ala Ser Arg
                                25
Asp Trp Ser Val Pro Ser Pro Pro Thr Ala Ser Gln Asp Ser Gly Val
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Gln Ser Pro Pro Gly Ala Ser Arg Asp Trp Ser Val Pro Ser Pro Pro
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Arg Ala Týr Gln Asp
<210> 2745
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<212> DNA
<213> Homo sapiens
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120
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769
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<211> 98
<212> PRT
<213> Homo sapiens
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Ser Gly Glu Lys Leu Pro Asp Gln Pro Phe Thr His His Ser Gln Glu
                             40
Gly Pro Phe Pro Pro Gly Arg Glu Thr Ser Arg Pro Ala Pro His Thr
Thr Ala Lys Arg Gly Leu Ser His Leu Glu Arg Asn Phe Gln Thr Ser
                    70
                                        75
Pro Ser His His Ser Gln Glu Gly Pro Phe Pro Pro Gly Glu Lys Leu
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                                    90
Pro Asp
<210> 2747
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<212> DNA
<213> Homo sapiens
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120
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180
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<212> PRT
<213> Homo sapiens
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Trp Thr Gly Ala Phe Trp Ile Pro Arg Pro Pro Ala Gly Ser Pro Lys
                           40
                                              45
Gly Cys Phe Ala Cys Val Ser Lys Pro Pro Ala Leu Gln Ala Pro Ala
                       55
                                          60
Ala Pro Ala Pro Glu Pro Ser Ala Ser Pro Pro Met Ala Pro Thr Leu
                   70
                                      75
                                                          80
Phe Pro Met Glu Ser Lys Ser Ser Lys Thr Asp Ser Val Arg Ala Ala
                                   90
Gly Ala Pro Pro Ala Cys Lys His Leu Ala Glu Lys Lys Thr Met Thr
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100
                                                     110
                                 105
Asn Pro Thr Thr Val Ile Glu Val Tyr Pro Asp Thr Thr Glu Val Asn
                            120
Asp Tyr Tyr Leu Trp Ser Ile Phe Asn Phe Val Tyr Leu Asn Phe Cys
                                             140
    130
                         135
Cys Leu Gly Phe Ile Ala Leu Ala Tyr Ser Leu Lys Val Arg Asp Lys
                                         155
Lys Leu Leu Asn Asp Leu Asn Gly Ala Val Glu Asp Ala Lys Thr Ala
                165
                                     170
Arg Leu Phe Asn Ile Thr Ser Ser Ala Leu Ala Ala Ser Cys Ile Ile
                                                     190
                                185
Leu Val Phe Ile Phe Leu Arg Tyr Pro Leu Thr Asp Tyr
                            200
                                                 205
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<212> DNA
<213> Homo sapiens
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425
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Phe Ser Leu Gly Pro Ser Ala Leu Gln Arg Gly Glu Ser Ser Met Arg
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Ser Glu Lys Pro Ser Thr Ala His His Arg Pro Leu Arg Ser Ile Ala
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Arg Phe Ser Ser Lys Ser Lys Ser Met Asp Lys Ser Asp Glu Glu Leu
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                    470
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Gln Phe Pro Lys Glu Leu Met Glu Asp Trp Ser Thr Met Glu Val Cys
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Val Asp Cys Lys Lys Phe Ile Ser Glu Ile Ile Ser Ser Ser Arg Arg
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Ser Leu Val Leu Ala Asn Lys Arg Ala Arg Leu Lys Arg Lys Thr Gln
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Gln Asp His Ser Ser Leu Asn Pro Gln Lys Trp His Cys Val Asp Cys
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Asn Thr Thr Glu Ser Ile Trp Ala Cys Leu Ser Cys Ser His Val Ala
Cys Gly Arg Tyr Ile Glu Glu His Ala Leu Lys His Phe Gln Glu Ser
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Arg Gln Gln Ala Pro Gly Pro Gln Gln Ala Pro Gly Pro Arg Gln Pro
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Pro Asp Lys Thr Trp Val Lys Lys Gly Glu Pro Leu Pro Val Lys Leu
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Lys Ser Glu Val Gln Leu Trp Leu Leu Lys Arg Ile Gln Val Pro Ile
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Glu Asp Ile Leu Pro Ser Lys Glu Glu Lys Ser Lys Thr Pro Pro Met
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Phe Leu Cys Ile Lys Val Gly Lys Pro Met Arg Lys Ser Phe Ala Thr
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His Thr Ala Ala Met Val Gln Gln Tyr Gly Lys Arg Arg Lys Gln Pro
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Glu Tyr Trp Phe Ala Val Pro Arg Glu Arg Val Asp His Leu Tyr Thr
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Phe Phe Val Gln Trp Ser Pro Asp Val Tyr Gly Lys Asp Ala Lys Glu
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Gln Gly Phe Val Val Val Glu Lys Glu Glu Leu Asn Met Ile Asp Asn
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Phe Phe Ser Glu Pro Thr Thr Lys Ser Trp Glu Ile Ile Thr Val Glu
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Glu Ala Lys Arg Arg Lys Ser Thr Cys Ser Tyr Tyr Glu Asp Glu Asp
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Glu Glu Val Leu Pro Val Leu Arg Pro Pro Arg Ala Phe Trp Glu Asn
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Lys Pro Leu Asn Arg Trp Ala Arg Pro Phe Pro Ala Arg Val Gln Gly
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Tyr Pro Trp Arg Leu Ala Tyr Ser Thr Leu Glu His Gly Thr Ser Leu
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330
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Tyr Asn Glu Ala Tyr Ile Ser Phe Leu Phe Val His Pro Glu Trp Arg
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                               345
Arg Ala Gly Ile Ala Thr Phe Met Ile Tyr His Leu Ile Gln Thr Cys
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Met Gly Lys Asp Val Thr Leu His Val Ser Ala Ser Asn Pro Ala Met
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Leu Leu Tyr Gln Lys Phe Gly Phe Lys Thr Glu Glu Tyr Val Leu Asp
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Ala Arg Ser Leu Cys Ser Ala Gly Thr Gln Pro Ala Pro Ser Thr Thr
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Ser Leu Pro Ser Trp Arg Ser Ala Ala Pro Leu Ala Trp Pro Leu Gln
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Glu Ala Gly Ser
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Ser Leu Ala Gln Pro Asp Arg Arg Tyr Ser Glu Pro Ser Met Pro Ser
Ser Gln Glu Cys Leu Glu Ser Arg Val Thr Asn Gln Thr Leu Thr Lys
Ser Glu Gly Asp Phe Pro Val Pro Arg Val Gly Ser Arg Leu Glu Ser
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Glu Glu Ala Glu Asp Pro Phe Pro Glu Glu Val Phe Pro Ala Val Gln
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Gly Lys Thr Lys Arg Pro Val Asp Leu Lys Ile Lys Asn Leu Ala Pro
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Gly Ser Val Leu Pro Arg Ala Leu Val Leu Lys Ala Phe Ser Ser Ser
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Ser Leu Asp Ala Ser Ser Asp Ser Ser Pro Val Ala Ser Pro Ser Ser
                      135 140
Pro Lys Arg Asn Phe Phe Ser Arg His Gln Ser Phe Thr Thr Lys Thr
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Glu Lys Gly Lys Pro Ser Arg Glu Ile Lys Lys His Ser Met Ser Phe
                                  170 175
Thr Phe Ala Pro His Lys Lys Val Leu Thr Lys Asn Leu Ser Ala Gly
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Ser Gly Lys Ser Gln Asp Phe Thr Arg Asp His Val Pro Arg Gly Val
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Arg Lys Glu Ser Gln Leu Ala Gly Arg Ile Val Gln Glu Asn Gly Cys
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Glu Thr His Asn Gln Thr Ala Arg Gly Phe Cys Leu Arg Pro His Ala
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Leu Ser Val Asp Asp Val Phe Gln Gly Ala Asp Trp Glu Arg Pro Gly
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Asp Pro Ser Glu Lys Leu Glu Leu Val Thr Gly Thr Asn Val Tyr Ile
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Thr Arg Ala Gln Leu Met Asn Cys His Val Ser Ala Gly Thr Arg His
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Lys Val Leu Leu Arg Arg Leu Leu Ala Ser Phe Phe Asp Arg Asn Thr
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Leu Ala Asn Ser Cys Gly Thr Gly Ile Arg Ser Ser Thr Asn Asp Pro
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                             120
Arg Arg Lys Pro Leu Asp Ser Arg Val Leu His Ala Val Lys Tyr Tyr
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                                             140
Cys Gln Asn Phe Ala Pro Asn Phe Lys Glu Ser Glu Met Asn Ala Ile
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Ala Ala Asp Met Cys Thr Asn Ala Arg Arg Val Val Arg Lys Ser Trp
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Phe Ile Ser Glu Thr Gly Lys Ile Glu Pro Asp Met Met Gly Val Glu
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Pne	Mec	val	Ser	245	GLY	PIO	Gry	cys	250	361	110	7120	בעם	255	200
~1	T1-	T	mh.~		Cvc	car	Glaz	Dro		Mot	Δεη	Pro	Tare		Cys
GIU	TTE	Lys	260	GIII	cys	261	Gry	265	ALG	MEL	ASP	FIU	270	116	Cys
Dwa	21-	N		71 -	Dho	Dho	Ca*		Tla	λen	λen	Ser		T.A11	Trr
PIO	MIG	275	PIO	Ala	PHE	FIIC	280	FIIC	110	ASII	7311	285	rob	200	115
37-3	71-		т1 о	~1	ωρ~	G1.		G111	A ~~	λνα	Len	Thr	Dhe	Cve	Hic
Val	290	WPII	116	GIU	1111	295	Giu	GIU	AL 9	719	300	****	2 110	Cys	
C1 =		T	C 0 x	N 020	v-1) en	λεπ	Dro	Luc		A 1 =	Gly	Va 1	Ala
	GIY	Leu	ser	ASII	310	Leu	ASD	ASP	FIO	315	JCI	ALG	Gry	Val	320
305	Dho	37-1	T1.	Cln		C1.	Dha	λου	ስ r cr		Thr	Gly	Tvr	Trn	
III	Pne	val	116	325	GIU	GIU	PILE	Asp	330	FIIC	1111	Gry	ı yı	335	пр
Crea	Dwa	The	71-		T	Clu	Gl v	Car		Glv	T.011	Taye	Thr	-	Arg
Cys	PIO	IIII	340	Ser	пр	Gru	GLY	345	GIU	GIY	Dea	Dys	350	Deu	A. y
Tla	T 011	T1.15		C1.,	17-1	N C TO	Glu.		Gl 11	Val	Glu	Val		Hic	Va 1
116	Leu	355	GIU	Giu	val	ASP	360	261	GIU	Val	Gru	365	116	1113	Val
D~0	Co=		71-	T 011	C1	G111		Live	Thr) en	Ser	Tyr	Δτα	ፓ _ህ ጉ	Pro
PLO	370	PIG	AIA	Leu	GIU	375	Arg	шys	1111	rsp	380	- 7 -	AL 9		110
7 ~~		C7.,	co.~	Tare) cn		Lve	Tla	λla	T.e.n		T.eu	Δla	Glu	Phe
385	1111	GIY	261	пуъ	390	FIU	цуs	116	ALG	395	Dy S		n_u		400
	Th~	N c n	50×	Gln		Lve	Tle	Val	Ser		Gln	Glu	Lvs	Glu	
GIII	IIII.	ASP	SEL	405	Gry	БуЗ	110	V 44 1	410	****	· · · ·		-,-	415	
Va I	Gl n	Pro	Dha		Ser	I. 11	Phe	Pro		Val	Glu	Tyr	Ile		Ara
Val	GIII	FIU	420	Jer	561	cu	1	425	_,_			-1-	430		5
212	Glv	Tro		Ara	Asp	Glv	Lvs	_	Ala	Trp	Ala	Met		Leu	Asp
	017	435				0-1	440	-1-				445			
Ara	Pro		Gln	Trp	Leu	Gln	_	Val	Leu	Leu	Pro	Pro	Ala	Leu	Phe
	450					455					460				
Ile		Ser	Thr	Glu	Asn		Glu	Gln	Arg	Leu	Ala	Ser	Ala	Arg	Ala
465					470				_	475				_	480
	Pro	Arg	Asn	Val	Gln	Pro	Tyr	Val	Val	Tyr	Glu	Glu	Val	Thr	Asn
		_		485			-		490	-				495	
Val	Trp	Ile	Asn	Val	His	Asp	Ile	Phe	Tyr	Pro	Phe	Pro	Gln	Ser	Glu
	•		500			-		505					510		
Gly	Glu	Asp	Glu	Leu	Cys	Phe	Leu	Arg	Ala	Asn	Glu	Cys	Lys	Thr	Gly
=		515					520					525			
Phe	Cys	His	Leu	Tyr	Lys	Val	Thr	Ala	Val	Leu	Lys	Ser	Gln	Gly	Tyr
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Asp	Trp	Ser	Glu	Pro	Phe	Ser	Pro	Gly	Glu	Asp	Glu	Phe	Lys	Cys	Pro
545	_				550					5 55					560
Ile	Lys	Glu	Glu	Ile	Ala	Leu	Thr	Ser	Gly	Glu	Trp	Glu	Val	Leu	Ala
•				565					570					575	•
Arg	His	Gly	Ser		Ile	Trp	Val	Asn	Glu	Glu	Thr	Lys	Leu	Val	Tyr
			580					585					590		
Phe	Gln	Gly	Thr	Lys	Asp	Thr	Pro	Leu	Glu	His	His	Leu	Tyr	Val	Val
		595		_			600					605			
Ser	Tyr	Glu	Ala	Ala	Gly	Glu	Ile	Val	Arg	Leu	Thr	Thr	Pro	Gly	Phe

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Ser His Ser Cys Ser Met Ser Gln Asn Phe Asp Met Phe Val Ser His
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Tyr Ser Ser Val Ser Thr Pro Pro Cys Val His Val Tyr Lys Leu Ser
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Gly Pro Asp Asp Pro Leu His Lys Gln Pro Arg Phe Trp Ala Ser
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                                                     670
Met Met Glu Ala Ala Ser Cys Pro Pro Asp Tyr Val Pro Pro Glu Ile
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Phe His Phe His Thr Arg Ser Asp Val Arg Leu Tyr Gly Met Ile Tyr
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1020
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Ala Arg Thr Gly Leu Arg Ile Cys Asp Leu Leu Ser Asp Phe Asp Glu
                          40
Phe Ser Ser Arg Phe Lys Asn Leu Ala His Gln His Gln Ser Met Phe
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Pro Thr Leu Glu Ile Asp Ile Glu Gly Gln Leu Lys Arg Leu Lys Gly
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Phe Ala Glu Arg Ile Arg Pro Met Val Arg Asp Gly Val Tyr Phe Met
                                  90
Tyr Glu Ala Leu His Gly Pro Pro Lys Lys Ile Leu Val Glu Gly Ala
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Asn Ala Ala Leu Leu Asp Ile Asp Phe Gly Thr Tyr Pro Phe Val Thr
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Ser Ser Asn Cys Thr Val Gly Gly Val Cys Thr Gly Leu Gly Ile Pro
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Pro Gln Asn Ile Gly Asp Val Tyr Gly Val Val Lys Ala Tyr Thr Thr
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                   150
Arg Val Gly Ile Gly Ala Phe Pro Thr Glu Gln Ile Asn Glu Ile Gly
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Gly Leu Leu Gln Thr Arg Gly His Glu Trp Gly Val Thr Thr Gly Arg
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Lys Arg Arg Cys Gly Trp Leu Asp Leu Met Ile Leu Arg Tyr Ala His
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Met Val Asn Gly Phe Thr Ala Leu Ala Leu Thr Lys Leu Asp Ile Leu
                                          220
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Asp Val Leu Gly Glu Val Lys Val Gly Val Ser Tyr Lys Leu Asn Gly
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Lys Arg Ile Pro Tyr Phe Pro Ala Asn Gln Glu Met Leu Gln Lys Val
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Glu Val Glu Tyr Glu Thr Leu Pro Gly Trp Lys Ala Asp Thr Thr Gly
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Ala Arg Arg Trp Glu Asp Leu Pro Pro Gln Ala Gln Asn Tyr Ile Arg
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Phe Val Glu Asn His Val Gly Val Ala Val Lŷs Trp Val Gly Val Gly
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gttgatgtag aagattatta cccagctttc ctggacatgg tgcggagcct gctggatggc
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1320
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2220
aacaggattt tgcttaaaat acttgttact tgtcccaaat caaaatattc caaaatctta
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Leu Arg Leu Lys Glu Pro Met Asp Val Asp Val Glu Asp Tyr Tyr Pro
                            40
Ala Phe Leu Asp Met Val Arg Ser Leu Leu Asp Gly Asn Ile Asp Ser
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Ser Gln Tyr Glu Asp Ser Leu Arg Glu Met Phe Thr Ile His Ala Tyr
                    70
Ile Ala Phe Thr Met Asp Lys Leu Ile Gln Ser Ile Val Arg Gln Leu
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90

Gln His Ile Val Ser Asp Glu Ile Cys Val Gln Val Thr Asp Leu Tyr
100 105 110

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Leu Ala Glu Asn Asn Gly Ala Thr Gly Gly Gln Leu Asn Thr Gln
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 Asn Ser Arg Ser Leu Leu Glu Ser Thr Tyr Gln Arg Lys Ala Glu Gln
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 Leu Met Ser Asp Glu Asn Cys Phe Lys Leu Met Phe Ile Gln Ser Gln
                     150
                                        155
 Gly Gln Val Gln Leu Thr Ile Glu Leu Leu Asp Thr Glu Glu Glu Asn
                165
                                    170
 Ser Asp Asp Pro Val Glu Ala Glu Arg Trp Ser Asp Tyr Val Glu Arg
                                185
                                                    190
 Tyr Met Asn Ser Asp Thr Thr Ser Pro Glu Leu Arg Glu His Leu Ala
                            200
 Gln Lys Pro Val Phe Leu Pro Arg Asn Leu Arg Arg Ile Arg Lys Cys
                        215
                                            220
 Gln Arg Gly Arg Glu Gln Gln Glu Lys Glu Gly Lys Glu Gly Asn Ser
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                                        235
 Lys Lys Thr Met Glu Asn Val Asp Ser Leu Asp Lys Leu Glu Cys Arg
                245
                                    250
 Phe Lys Leu Asn Ser Tyr Lys Met Val Tyr Val Ile Lys Ser Glu Asp
            260
                                265
 Tyr Met Tyr Arg Arg Thr Ala Leu Leu Arg Ala His Gln Ser His Glu
                            280
                                                285
Arg Val Ser Lys Arg Leu His Gln Arg Phe Gln Ala Trp Val Asp Lys
                        295
                                            300
Trp Thr Lys Glu His Val Pro Arg Glu Met Ala Ala Glu Thr Ser Lys
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                                        315
Trp Leu Met Gly Glu Gly Leu Glu Gly Leu Val Pro Cys Thr Thr Thr
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Cys Asp Thr Glu Thr Leu His Phe Val Ser Ile Asn Lys Tyr Arg Val
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Lys Tyr Gly Thr Val Phe Lys Ala Pro
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360
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Ile Leu Asn Val Arg Arg Thr Cys Arg Lys Leu Ala Ala Leu Cys Leu
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Asp Lys Ser Leu Ile His Thr Val Leu Leu Gln Lys Asp Tyr Gln Ala
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Ser Glu Asp Lys Val Arg Gln Leu Val Lys Glu Ile Gly Arg Glu Ile
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Gln Gln Leu Ser Met Ala Gly Cys Tyr Trp Leu Pro Gly Ser Thr Val
                                105
Glu His Val Ala Arg Cys Pro Gln Pro Gly Glu Gly Glu Pro Leu Gly
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                            120
Leu Pro Pro His Phe Pro Ala Pro Leu Gln Asp Ala Leu Gly Pro Ala
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Ala Pro Ala Leu Ala Gly His Arg Arg Glu Pro
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gecetetget gggtgetett acaggtgeta etgeatecag egettgaaac aattetgtgg
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60

55

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Gly Ser Pro Pro Thr Pro Pro Gly Leu Pro Pro Val Pro Arg Glu Arg
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Gln Ser Gln Lys Thr Gln Ala Gln Ala Ser Ala Thr Pro Ala Ala Cys
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Arg Val Ala Leu Arg Arg Gly Ser Gly Ser Arg Pro Arg
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1080
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Phe Thr Phe Thr Ile Pro Asp Val Glu Asp Ser Ser Gln Arg Pro Asp
Gln Gly Pro Gln Arg Pro Pro Pro Glu Gly Leu Leu Pro Arg Pro Pro
                            40
Gly Asp Ser Gly Asn Gln Asp Asp Gly Pro Gln Gln Arg Pro Pro Lys
                                             60
                        55
Pro Gly Gly His His Arg His Pro Pro Pro Pro Pro Phe Gln Asn Gln
                    70
                                         75
Gln Arg Pro Pro Gln Arg Gly His Arg Gln Leu Ser Leu Pro Arg Phe
                                    90
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Pro Ser Val Ser Leu Gln Glu Ala Ser Ser Phe Phe Arg Arg Asp Arg
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Pro Ala Arg His Pro Gln Glu Gln Pro Leu Trp
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cagatettaa qtaqtqatat ttetettttg tetgeeecta ttgtaagtgc agatggaaca
caacaggtta ttctggtaca agttaaccca ggagaagcat ttacaataag aagagaagat
480
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ggacagtttc agtgcattac aggtcctgct caggttccaa tgatgtcccc aaatggttct
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caccacgtca tatgtactca cccgtgactg gagctggaga catgacaaca cagtatatgc
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cacgcgt
847
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Asp Ile Ser Leu Leu Ser Ala Pro Ile Val Ser Ala Asp Gly Thr Gln
Gln Val Ile Leu Val Gln Val Asn Pro Gly Glu Ala Phe Thr Ile Arg
Arg Glu Asp Gly Gln Phe Gln Cys Ile Thr Gly Pro Ala Gln Val Pro
                        55
Met Met Ser Pro Asn Gly Ser Val Pro Pro Ile Tyr Val Pro Pro Gly
                    70
Tyr Ala Pro Gln Val Ile Glu Asp Asn Gly Val Arg Arg Val Val Val
                85
                                    90
Val Pro Gln Ala Pro Glu Phe His Pro Gly Ser His Thr Val Leu His
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Arg Ser Pro His Pro Pro Leu Pro Gly Phe Ile Pro Val Pro Thr Met
                            120
Met Pro Pro His His Val Ile Cys Thr His Pro
    130
                        135
<210> 2795
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<212> DNA
<213> Homo sapiens
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geetggeage tgetggttgt ggaatagtte tggatgeeaa teteeteeag geteetgegg
atgtcaccca gcatggaaag gacatcttga gtgggcacca ccccctgctc gcccaccagt
240
```

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gtcatgagaa ggtgctgctc cttctcgctg ggcttgctca gagagatgtg ccaggcccca
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 gattgagett cagetgeetg ceettetagg agetgetggt tgagatette ttgteceaag
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actgtggcct ctgcctcttg gctggtggag tcctggtccc ccggagtcac tgtagttggg
gtgactgaag gcagcagcaa gctgggcccc atgctgctct ccacctcatc aggtgagnna
gaaaagtcac ggacctgagg cttggcttct tcttgggatc cattcacagg gagcagctcc
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1020
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1022
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<212> PRT
<213> Homo sapiens
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Pro Lys Val Ala Glu Glu Gly Val Ser Ser Met Ser Pro Gly Ala Ser
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Gly Glu Glu Ala Glu Val Leu Glu Pro Arg Gly Ser Ser Ser Gly Cys
Ser Ala Pro Leu Gly Ala Val Val
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<212> DNA
<213> Homo sapiens
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gecetectea teageacetg cateetgeee aatgtggagg cegtgageaa cateeacaae
120
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ctgaactcca tcagcgagtc cccgcatgag cgcatgcacc cctacatcga gctggcctgg
ggetteteca cegtgettgg catectacte tteetggeeg aggtggtget getetgetgg
240
atcaagttee teecegtgga tgeceggege cageetggee eeceaeetgg eeetgggagt
cacacgggct ggcaggccgc cctggtgtcc accatcatca tggtgcccgt gggcctcatc
ttogtggtot toaccatoca ottotacogo tocotggtgo gocacaaaac ggagogocac
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475
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<211> 158
<212> PRT
<213> Homo sapiens
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Arg Pro Leu Leu Ile Ala Phe Ser Ala Cys Thr Thr Val Leu Val Ala
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Val His Leu Phe Ala Leu Leu Ile Ser Thr Cys Ile Leu Pro Asn Val
Glu Ala Val Ser Asn Ile His Asn Leu Asn Ser Ile Ser Glu Ser Pro
                            40
His Glu Arg Met His Pro Tyr Ile Glu Leu Ala Trp Gly Phe Ser Thr
                                            60
                        55
Val Leu Gly Ile Leu Leu Phe Leu Ala Glu Val Val Leu Leu Cys Trp
Ile Lys Phe Leu Pro Val Asp Ala Arg Arg Gln Pro Gly Pro Pro
                                    90
                85
Gly Pro Gly Ser His Thr Gly Trp Gln Ala Ala Leu Val Ser Thr Ile
                                105
            100
Ile Met Val Pro Val Gly Leu Ile Phe Val Val Phe Thr Ile His Phe
                            120
Tyr Arg Ser Leu Val Arg His Lys Thr Glu Arg His Asn Arg Glu Ile
                                            140
                        135
Glu Glu Leu His Lys Leu Lys Val Gln Leu Asp Gly His Glu
                    150
145
<210> 2799
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<212> DNA
<213> Homo sapiens
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gggcagccct tgagcttgac tcctctgggg ccagtctcta tcagaaaatg cctgaccagc
tcatgggtca tgtctccttt tttattctgc tgcatgatgg ttggaggtgg cgaagacacc
240
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ttcatggcca gcccgtacaa gcctgagatc tccagggagc aggccatcgc gctcctcaag
gaccaggage egggggeett catcateege gacagteact cetteegagg egegtaeggg
ctggccatga aggtgtcttc gccacctcca accatcatgc agcagaataa aaaaggagac
atgacccatg agetggtcag geattttctg atagagactg geeccagagg agteaagete
aagggetgee ccaatgagee aaaettegga tegetgtetg eeetggteta eeageaetee 540
atcatcccat tggccctgcc ttgcaagctg gtcattccaa accgagaccc cacagatgaa
togaaagata geteeggeee tgeeaaetea aetgeagaee tgetgaaaea aggggeagee
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caggicicit igcigigeet ceactatati giegigiggg igigigicig caeceacate
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ttgtcccatg tgtttgtaga cacacatgca tactgtccaa agattagggt tggtggtggc
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1980
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2100
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cagcagaget cetgggeetg etgeetgeae accacatege etacetacaa tgeeaaagee
2460
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acatgagaca tactgacaga atctgtaagc taataaaatg taagaaaagg ttaaaaaaaag
2760
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<212> PRT
<213> Homo sapiens
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Thr Phe Met Ala Ser Pro Tyr Lys Pro Glu Ile Ser Arg Glu Gln Ala
Ile Ala Leu Leu Lys Asp Gln Glu Pro Gly Ala Phe Ile Ile Arg Asp
Ser His Ser Phe Arg Gly Ala Tyr Gly Leu Ala Met Lys Val Ser Ser
                        55
Pro Pro Pro Thr Ile Met Gln Gln Asn Lys Lys Gly Asp Met Thr His
                                        75
Glu Leu Val Arg His Phe Leu Ile Glu Thr Gly Pro Arg Gly Val Lys
Leu Lys Gly Cys Pro Asn Glu Pro Asn Phe Gly Ser Leu Ser Ala Leu
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100
                                 105
Val Tyr Gln His Ser Ile Ile Pro Leu Ala Leu Pro Cys Lys Leu Val
        115
                             120
                                                 125
Ile Pro Asn Arg Asp Pro Thr Asp Glu Ser Lys Asp Ser Ser Gly Pro
                         135
                                             140
Ala Asn Ser Thr Ala Asp Leu Leu Lys Gln Gly Ala Ala Cys Asn Val
                     150
                                         155
Leu Phe Ile Asn Ser Val Asp Met Glu Ser Leu Thr Gly Pro Gln Ala
                                     170
                 165
Ile Ser Lys Ala Thr Ser Glu Thr Leu Ala Ala Asp Pro Thr Pro Ala
                                 185
                                                     190
Ala Thr Ile Val His Phe Lys Val Ser Ala Gln Gly Ile Thr Leu Thr
                             200
                                                 205
Asp Asn Gln Arg Lys Leu Phe Phe Arg Arg His Tyr Pro Leu Asn Thr
    210
                         215
                                             220
Val Thr Phe Cys Asp Leu Asp Pro Gln Glu Arg Lys Trp Met Lys Thr
225
                    230
                                         235
Glu Gly Gly Ala Pro Ala Lys Leu Phe Gly Phe Val Ala Arg Lys Gln
                245
                                     250
Gly Ser Thr Thr Asp Asn Ala Cys His Leu Phe Ala Glu Leu Asp Pro
                                 265
Asn Gln Pro Ala Ser Ala Ile Val Asn Phe Val Ser Lys Val Met Leu
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Asn Ala Gly Gln Lys Arg
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<212> DNA
<213> Homo sapiens
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cctcccacca ttgtacagga caaagtgctt gctctgatcc aggcatgggc tgatgccttt
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gttgaattc
549
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<210> 2802

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<211> 151
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<213> Homo sapiens
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Leu Glu Lys Ala Thr Asp Gly Ser Leu Gln Ser Glu Asp Trp Thr Leu
                                25
Asn Met Glu Ile Cys Asp Ile Ile Asn Glu Thr Glu Glu Gly Pro Lys
Asp Ala Ile Arg Ala Leu Lys Lys Arg Leu Asn Gly Asn Arg Asn Tyr
                        55
Arg Glu Val Met Leu Ala Leu Thr Val Leu Glu Thr Cys Val Lys Asn
                    70
                                        75
Cys Gly His Arg Phe His Ile Leu Val Ala Asn Arg Asp Phe Ile Asp
                85
                                    90
Ser Val Leu Val Lys Ile Ile Ser Pro Lys Asn Asn Pro Pro Thr Ile
                                105
            100
Val Gln Asp Lys Val Leu Ala Leu Ile Gln Ala Trp Ala Asp Ala Phe
                                                125
                            120
Arg Ser Ser Pro Asp Leu Thr Gly Val Val His Ile Tyr Glu Glu Leu
                                            140
                        135
Lys Arg Lys Gly Val Glu Phe
145
<210> 2803
<211> 459
<212> DNA
<213> Homo sapiens
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ccgccagccg tagggtgtgt gctgtccggg ctcacgggga ccctgtctcc gagtcgttcg
tgcagcgtgt gtaccagccc ttcctcacca cctgcgacgg gcaccgggcc tgcagcacct
accgcaatat gccagccgcc atgccggaac ggagggagct gtgtccagcc tggccgctgc
cgctgccctg caggatggcg gggtgacact tgccagtcag atgtggacna gtgcaatgaa
ggaagaagtg cagaggetge agtecagggt ggacetgetg gaggagaage tgeagetggt
actggcccca ctgcacagcc tggcctcgca ggcactgga
459
<210> 2804
<211> 153
<212> PRT
<213> Homo sapiens
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 Xaa Met Ala Thr Pro Gly Leu Gln Gln His Gln Gln Pro Pro Gly Pro
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 Gly Arg His Arg Trp Pro Pro Pro Pro Gly Gly Ala Ala Pro Ala Pro
                                25
 Val Arg Gly Met Thr Asp Ser Pro Pro Pro Ala Val Gly Cys Val Leu
                            40
 Ser Gly Leu Thr Gly Thr Leu Ser Pro Ser Arg Ser Cys Ser Val Cys
                        55
 Thr Ser Pro Ser Ser Pro Pro Ala Thr Gly Thr Gly Pro Ala Ala Pro
                                        75
 Thr Ala Ile Cys Gln Pro Pro Cys Arg Asn Gly Gly Ser Cys Val Gln
 Pro Gly Arg Cys Arg Cys Pro Ala Gly Trp Arg Gly Asp Thr Cys Gln
                               105
 Ser Asp Val Asp Xaa Cys Asn Glu Gly Arg Ser Ala Glu Ala Ala Val
                            120
 Gln Gly Gly Pro Ala Gly Gly Glu Ala Ala Ala Gly Thr Gly Pro Thr
                        135
Ala Gln Pro Gly Leu Ala Gly Thr Gly
145
                    150
<210> 2805
<211> 771
<212> DNA
<213> Homo sapiens
<400> 2805
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aagtttaatc agacctgctc acacttcaga atagagaaga ttgagaggat ccagaatcca
gatetetgga atagetacca ggcaaagaaa aaaactatgg atgecaagaa tggccagaca
atgaatgaga agcaactett ccatgggaca gatgccgget ccgtgccaca cgtcaatcga
aatggcttta accgcagcta tgccggaaag aatgctgtgg catatggaaa gggaacctat
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ttaattgtgc ctccttcaaa gaaccctcaa aatcctactg acctgtatga cactgtcaca
gataatgtgc accatccaag tttatttgtg gcattttatg actaccaagc atacccagag
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tgtacatatc tagttgtaaa acaagtttta gcttttttt ttaattcctc ttaacagatt
660
tttctaatat ccaaggatca ttctttgtcg ctgcagtcag atctttcttc agcttctctt
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771
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<210> 2806
<211> 187
<212> PRT
<213> Homo sapiens
<400> 2806
Xaa Asn Phe Cys Val Val Glu Leu Leu Pro Ser Asp Pro Glu Tyr Asn
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                                    10
Thr Val Ala Ser Lys Phe Asn Gln Thr Cys Ser His Phe Arg Ile Glu
Lys Ile Glu Arg Ile Gln Asn Pro Asp Leu Trp Asn Ser Tyr Gln Ala
Lys Lys Lys Thr Met Asp Ala Lys Asn Gly Gln Thr Met Asn Glu Lys
Gln Leu Phe His Gly Thr Asp Ala Gly Ser Val Pro His Val Asn Arg
                    70
Asn Gly Phe Asn Arg Ser Tyr Ala Gly Lys Asn Ala Val Ala Tyr Gly
                                    90
               85
Lys Gly Thr Tyr Phe Ala Val Asn Ala Asn Tyr Ser Ala Asn Asp Thr
                               105
Tyr Ser Arg Pro Asp Ala Asn Gly Arg Lys His Val Tyr Tyr Val Arg
                            120
                                                125
Val Leu Thr Gly Ile Tyr Thr His Gly Asn His Ser Leu Ile Val Pro
                        135
Pro Ser Lys Asn Pro Gln Asn Pro Thr Asp Leu Tyr Asp Thr Val Thr
                                        155
                    150
Asp Asn Val His His Pro Ser Leu Phe Val Ala Phe Tyr Asp Tyr Gln
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                                    170
Ala Tyr Pro Glu Tyr Leu Ile Thr Phe Arg Lys
<210> 2807
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<212> DNA
<213> Homo sapiens
<400> 2807
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cccaggtgct cagggccgcc tgtgaatgca ggtgccttgt cccaaacaga ggacatatta
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gaacaagtag ggagaggagc caggacctag gccttcaggt tttcagcaag gaaggactct
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agggagetet ceacactgga ategetgtag cegaggaggt tetaatggga egatettega
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<210> 2808
<211> 390
<212> PRT
<213> Homo sapiens
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1
                                    10
Glu Leu Ala Gly Cys Ala Ser Cys Leu Thr Val Gln Asp Asn Trp Thr
                                25
Leu Glu Leu Glu Ser Ser Gln Asp Ile Gln Asp Val Leu Asp Ala Asn
Lys Ser Leu Pro Glu Ser Ser Leu Thr Asp Leu Leu Ser Asp Asn Phe
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55
Thr Asp Ser Leu Val Ser Phe Ser Ala Glu Ile Leu Ser Arg Thr Leu
         70
Cys Glu Pro Leu Val Ala Ser Leu Trp Met Lys Leu Gly Asn Thr Gly
                                90
Ala Met Arg Arg Cys Val Lys Leu Thr Val Ala Leu Glu Thr Ala Glu
                  105
Cys Glu Phe Pro Pro His Leu Asp Val Tyr Ile Glu Asp Pro His Leu
                         120
Pro Pro Ser Leu Gly Leu Leu Pro Gly Ala Arg Val His Phe Ser Gln
   130 135
Leu Glu Lys Arg Val Ser Arg Ser His Asn Val Tyr Cys Cys Phe Arg
                 150
                                   155
Ser Ser Thr Tyr Val Gln Val Leu Ser Phe Pro Pro Glu Thr Thr Ile
              165
                                170
Ser Val Pro Leu Pro His Ile Tyr Leu Ala Glu Leu Leu Gln Gly Gly
                            185
Gln Ser Pro Phe Gln Ala Thr Ala Ser Cys His Ile Val Ser Val Phe
                         200
                                           205
      195
Ser Leu Gln Leu Phe Trp Val Cys Ala Tyr Cys Thr Ser Ile Cys Arg
                    215
                                       220
Gln Gly Lys Cys Thr Arg Leu Gly Ser Thr Cys Pro Thr Gln Thr Ala
                                    235
                 230
Ile Ser Gln Ala Ile Ile Arg Leu Leu Val Glu Asp Gly Thr Ala Glu
                                250
Ala Val Val Thr Cys Arg Asn His His Val Ala Ala Ala Leu Gly Leu
                            265
Cys Pro Arg Glu Trp Ala Ser Leu Leu Asp Phe Val Gln Val Pro Gly
                         280
       275
Arg Val Val Leu Gln Phe Ala Gly Pro Gly Ala Gln Leu Glu Ser Ser
                                        300
                     295
Ala Arg Val Asp Glu Pro Met Thr Met Phe Leu Trp Thr Leu Cys Thr
                                    315
                  310
Ser Pro Ser Val Leu Arg Pro Ile Val Leu Ser Phe Glu Leu Glu Arg
                                330
              325
Lys Pro Ser Lys Ile Val Pro Leu Glu Pro Pro Arg Leu Gln Arg Phe
         340
                            345
Gln Cys Gly Glu Leu Pro Phe Leu Thr His Val Asn Pro Arg Leu Arg
      355 360
Leu Ser Cys Leu Ser Ile Arg Glu Ser Glu Tyr Ser Ser Ser Leu Gly
Ile Leu Ala Ser Ser Cys
                  390
385
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120
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Val Ser His Asp Cys Thr Phe Val Gly Arg Lys Val Ile His Thr Cys
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 Tyr Gln Pro Phe Leu Thr Thr Cys Asp Gly His Arg Ala Cys Ser Thr
 Tyr Arg Thr Ile Tyr Arg Thr Ala Tyr Arg Arg Ser Pro Gly Leu Ala
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 Pro Ala Arg Pro Arg Tyr Ala Cys Cys Pro Gly Trp Lys Arg Thr Ser
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 Gly Leu Pro Gly Ala Cys Gly Ala Ala Ile Cys Gln Pro Pro Cys Arg
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 Asn Gly Gly Ser Cys Val Gln Pro Gly Arg Cys Arg Cys Pro Ala Gly
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 Trp Arg Gly Asp Thr Cys Gln Ser Asp Val Asp Glu Cys Ser Ala Arg
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 Arg Gly Gly Cys Pro Gln Arg Cys Val Asn Thr Ala Gly Ser Tyr Trp
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Cys Gln Cys Trp Glu Gly His Ser Leu Ser Ala Asp Gly Thr Leu Cys
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Val Pro Lys Gly Gly Pro Pro Arg Val Ala Pro Asn Pro Thr Gly Val
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Asp Ser Ala Met Lys Glu Glu Val Gln Arg Leu Gln Ser Arg Val Asp
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Leu Leu Glu Glu Lys Leu Gln Leu Val Leu Ala Pro Leu His Ser Leu
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Ala Ser Gln Ala Gly Ala Trp Ala Pro Gly Pro Arg Gln Pro Pro Gly
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                                       235
Ala Leu Leu Pro Ala Ala Arg Pro His Arg Leu Pro Glu Arg Ala Asp
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                                   250
Phe Leu Pro Gly Gly Ala Ala Gly Val Leu Leu Leu Gln Glu Arg Leu
                               265
Xaa Asp Cys Pro Ala Pro Gln Ala Gly Leu Ser Pro Ser Arg Arg Pro
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Gln His Gln His Thr His Gln His Thr His Gln His Thr His Gln His
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420

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Met Gly Ala Pro Gly Glu Arg Cys Lys Ser His Tyr Ala Ala Phe Ser
Val Gly Arg Glu Ala His Ala Gln Gln Pro Leu Leu Pro Asp Val Ile
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Phe Asp Thr Glu Phe Val Asn Leu Tyr Asp His Phe Asn Met Phe Thr
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Gly Lys Phe Tyr Cys Tyr Val Pro Gly Leu Tyr Phe Phe Ser Leu Asn
            100
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Val His Thr Trp Asn Gln Lys Glu Thr Tyr Leu His Ile Met Lys Asn
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Glu Glu Val Val Ile Leu Phe Ala Gln Val Gly Asp Arg Ser Ile
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                                            140
Met Gln Ser Gln Ser Leu Met Leu Glu Leu Arg Glu Gln Asp Gln Val
                    150
                                        155
Trp Val Arg Leu Tyr Lys Gly Glu Arg Glu Asn Ala Ile Phe Ser Glu
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                                   170
Glu Leu Asp Thr Tyr Ile Thr Phe Ser Gly Tyr Leu Val Lys His Ala
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Thr Glu Pro
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Lys His Val Glu Phe Asp Phe Leu Ile Lys Gly Gln Phe Leu Arg Met
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Pro Leu Asp Lys His Met Glu Met Glu Asp Ile Ser Ser Glu Glu Val
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Val Glu Ile Glu Tyr Val Glu Lys Tyr Thr Ala Pro Gln Pro Glu Gln
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Cys Met Phe His Asp Asp Trp Ile Ser Ser Ile Lys Gly Ala Glu Glu
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Trp Ile Leu Thr Gly Ser Tyr Gly Lys Thr Ser Arg Ile Trp Ser Leu
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Glu Gly Lys Ser Ile Met Thr Ile Val Gly His Thr Asp Val Val Lys
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Asp Val Ala Trp Val Lys Lys Asp Ser Leu Ser Cys Leu Leu Xaa Glu
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Cys Phe Tyr Gly Ser Asp Tyr Ser Leu Met Gly Val Glu Cys Arg Glu
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                                   170
Lys Gln Ser Glu Ser Pro Thr Leu Leu Xaa Arg Gly His Ala Gly Ser
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Val Asp Ser Ile Ala Val Asp Gly Ser Gly Thr Lys Phe Cys Ser Gly
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Ser Trp Asp Lys Met Leu Lys Ile Trp Ser Thr Val Pro Thr Asp Glu
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His Met Glu Ala Val Ser Ser Val Leu Trp Ser Asp Ala Glu Glu Ile
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Cys Ser Ala Ser Trp Asp His Thr Ile Arg Val Trp Asp Val Glu Ser
                           280
Gly Ser Leu Lys Ser Thr Leu Thr Gly Asn Lys Val Phe Asn Cys Ile
Ser Tyr Ser Pro Leu Cys Lys Arg Leu Ala Ser Gly Ser Thr Asp Arg
                   310
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His Ile Arg Leu Trp Asp Pro Arg Thr Lys Asp Gly Ser Leu Val Ser
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Leu Ser Leu Thr Ser His Thr Gly Trp Val Thr Ser Val Lys Trp Ser
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Ala His Glu Asp Lys Val Leu Ser Val Asp Trp Thr Asp Thr Gly Leu
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Leu Gln Ala Gln Ala His Thr Gly Pro Ala Ser Pro Ala Ala Leu Pro
                            40
Lys Gly Asp Ala Cys Asp Cys Val Cys Leu Pro Thr Gly Val Thr Thr
                                            60
                        55
His Pro Arg Pro Pro Glu Pro Gln His Glu Gly Ser Ala Pro Phe Pro
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                                        75
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Glu Ser Pro Leu Thr Leu Ala Ala Cys Gly Gly His Val Glu Leu Ala
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Val Ala Leu Leu Ser Thr Arg Ser Xaa Ile Ser Met His Arg Gln
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Lys Lys Leu Lys Lys Leu Leu Thr Leu Ala Cys Cys Gly Gly Phe
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Gly Cys Ser Thr Pro Leu Met Glu Ala Ala Gln Glu Gly His Leu Glu
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Thr	Tyr	Leu	Arg 180			Arg	Phe	Cys 185	Thr		Cys	Lys	Asn 190	Lys	
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375
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Val Ile Asp Thr Pro Gly Phe Gly Asp His Ile Asn Asn Glu Asn Cys
                                       395
Trp Gln Pro Ile Met Lys Phe Ile Asn Asp Gln Tyr Glu Lys Tyr Leu
                                   410
                405
Gln Glu Glu Val Asn Ile Asn Arg Lys Lys Arg Ile Pro Asp Thr Arg
                                425
            420
Val His Cys Cys Leu Tyr Phe Ile Pro Ala Thr Gly His Ser Leu Arg
                        440
                                                445
Pro Leu Asp Ile Glu Phe Met Lys Arg Leu Ser Lys Val Val Asn Ile
                        455
Val Pro Val Ile Ala Lys Ala Asp Thr Leu Thr Leu Glu Glu Arg Val
                                        475
                   470
His Phe Lys Gln Arg Ile Thr Ala Asp Leu Leu Ser Asn Gly Ile Asp
                                    490
                485
Val Tyr Pro Gln Lys Glu Phe Asp Glu Asp Ser Glu Asp Arg Leu Val
                               505
           500
Asn Glu Lys Phe Arg Glu Met Ile Pro Phe Ala Val Val Gly Ser Asp
                           520
His Glu Tyr Gln Val Asn Gly Lys Arg Ile Leu Gly Arg Lys Thr Lys
                                            540
                        535
Trp Gly Thr Ile Glu Val Glu Asn Thr Thr His Cys Glu Phe Ala Tyr
                   550
                                        555
Leu Arg Asp Leu Leu Ile Arg Thr His Met Gln Asn Ile Lys Asp Ile
                                   570
               565
Thr Ser Ser Ile His Phe Glu Ala Tyr Arg Val Lys Arg Leu Asn Glu
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Gly Ser Ser Ala Met Ala Asn Gly Val Glu Glu Lys Glu Pro Glu Ala
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Pro Glu Met
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<212> DNA
<213> Homo sapiens
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actactggga gtctcgggga gccgcagtgg ctgagggtag ccaccggggg gcgccctgga
acategeegg cettgttete eggacgtggg geagecaeeg gggggegeea gggaggaege
ttcgatacca aatgeetege ggetgeeact tggggaegee tteetggtee egaagaaaca
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Leu Leu Arg Leu Leu Arg Ser Pro Thr Leu Arg Gly His Gly Gly Ala
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Ser Gly Arg Asn Val Thr Thr Gly Ser Leu Gly Glu Pro Gln Trp Leu
                            40
Arg Val Ala Thr Gly Gly Arg Pro Gly Thr Ser Pro Ala Leu Phe Ser
    50
                                             60
                         55
Gly Arg Gly Ala Ala Thr Gly Gly Arg Gln Gly Gly Arg Phe Asp Thr
                    70
Lys Cys Leu Ala Ala Ala Thr Trp Gly Arg Leu Pro Gly Pro Glu Glu
                                    90
Thr Leu Pro Gly Gln Asp Ser Trp Asn Gly Val Pro Ser Arg Ala Gly
                                105
                                                     110
Leu Gly Met Cys Ala
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<211> 938
<212> DNA
<213> Homo sapiens
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tgggccaagg cctctctaag gcccagcggc tctcatgggc aaatgtcagg tgacacagag
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tragagarer tgagtgtgrg aggggaagat attggtgaag acctgttete tgaggreetg
ggccgggcag tggggcagtg ggcgggggcc aagctgctgg accatggctg tgtggagagc
660
agcattctgg attcctctgc gggctctgct ccccactacg aggtgtttgt ggcgctgagg
720
gggctgagga atctgtcaga ggaaaatcga gacaagctgg accactgcct tcaggaagcc
780
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teteceeget acaagteeet geggttetgg ggeagegtgg geeetgeaga gtecaeetgg
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Pro Glu Ala His Thr Ser Glu Pro Val Ser Trp Ala Lys Ala Ser Leu
            20
                                 25
Arg Pro Ser Gly Ser His Gly Gln Met Ser Gly Asp Thr Glu Ser Glu
Thr Leu Ser Val Arg Gly Glu Asp Ile Gly Glu Asp Leu Phe Ser Glu
                        55
                                             60
Ala Leu Gly Arg Ala Val Gly Gln Trp Ala Gly Ala Lys Leu Leu Asp
                    70
                                         75
His Gly Cys Val Glu Ser Ser Ile Leu Asp Ser Ser Ala Gly Ser Ala
                85
                                     90
Pro His Tyr Glu Val Phe Val Ala Leu Arg Gly Leu Arg Asn Leu Ser
Glu Glu Asn Arg Asp Lys Leu Asp His Cys Leu Gln Glu Ala Ser Pro
                            120
                                                 125
Arg Tyr Lys Ser Leu Arg Phe Trp Gly Ser Val Gly Pro Ala Glu Ser
                                             140
    130
                        135
Thr Trp Trp Cys Pro Glu Ser Ser Pro Ala Pro Pro Pro Ser Ser Pro
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Gln Arg Pro Pro Arg Pro Ser Leu Trp Asp Leu Ser Gly Trp Gly Val
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Leu Gly
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<212> DNA
<213> Homo sapiens
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tggaaagatc tggcgatgac ctacaaacag agggcagaaa atacgcaaga ggaactccga
gaattccagg agggaagccg agaatatgaa gctgaattgg agacgcagct gcaacaaatt
gaaaccagga acagagacct cctgtccgaa aataaccgcc ttcgcatgga gctggaaacc
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atcaaggaga agtttgaagt gcagcactct gaaggctacc ggcagatctc agccttggag
gatgacctcg cgcagaccaa agccattaaa gaccaattgc agaaatacat cagagagctg
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tttgagcagc gcttgaatca ggccatcgaa agaaatgcct tcctggaaag tgaacttgat
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caggaactgg ccgtgcagca gaagcaggag aaacccagga cccccatgcc cagctcagtg
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gctcaccgag gacccagctc aagtttaaac acacctggga gcttcagacg tggcctggac
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gachtccacc gggggacccc cetcacacet geggecegga tateagecet caacattgtg
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gtgtacgatc agtccccaaa ccgaacaggt ggcccagcct ctgggcggag cagcaagaac
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agagatggeg gggagagaeg gecaageage accagegtge etttgggtga taaggggtea
1020
gtacetteta ataaacetet egetggeggg gagaaceege etgeeceagg caagagacae
tcaccccag cccacagcca tgtgtctttt taaattatag gattatttca gcaaacctta
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<212> PRT
<213> Homo sapiens
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Ile Ser Ser Pro Val Phe Thr Met Glu Asp Ser Gly Lys Thr Phe Ser
            20
Ser Glu Glu Glu Ala Asn Tyr Trp Lys Asp Leu Ala Met Thr Tyr
        35
                            40
Lys Gln Arg Ala Glu Asn Thr Gln Glu Glu Leu Arg Glu Phe Gln Glu
                                            60
Gly Ser Arg Glu Tyr Glu Ala Glu Leu Glu Thr Gln Leu Gln Gln Ile
                    70
                                        75
Glu Thr Arg Asn Arg Asp Leu Leu Ser Glu Asn Asn Arg Leu Arg Met
                                    90
Glu Leu Glu Thr Ile Lys Glu Lys Phe Glu Val Gln His Ser Glu Gly
            100
                                105
Tyr Arg Gln Ile Ser Ala Leu Glu Asp Asp Leu Ala Gln Thr Lys Ala
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120

115

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Ile Lys Asp Gln Leu Gln Lys Tyr Ile Arg Glu Leu Glu Gln Ala Asn
                       135
                                            140
Asp Ala Leu Glu Arg Ala Lys Arg Ala Thr Ile Met Ser Leu Glu Asp
                    150
Phe Glu Gln Arg Leu Asn Gln Ala Ile Glu Arg Asn Ala Phe Leu Glu
                                    170
                165
Ser Glu Leu Asp Glu Lys Glu Asn Leu Leu Glu Ser Val Gln Arg Leu
            180
                                185
                                                    190
Lys Asp Glu Ala Arg Asp Leu Arg Gln Glu Leu Ala Val Gln Gln Lys
                            200
        195
Gln Glu Lys Pro Arg Thr Pro Met Pro Ser Ser Val Glu Ala Glu Arg
                                            220
                        215
Thr Asp Thr Ala Val Gln Ala Thr Gly Ser Val Pro Ser Thr Pro Ile
                    230
                                        235
Ala His Arg Gly Pro Ser Ser Ser Leu Asn Thr Pro Gly Ser Phe Arg
                245
                                    250
Arg Gly Leu Asp Asp Xaa His Arg Gly Thr Pro Leu Thr Pro Ala Ala
                                265
            260
Arg Ile Ser Ala Leu Asn Ile Val Gly Asp Leu Leu Arg Lys Val Gly
                            280
Ala Leu Glu Ser Lys Leu Ala Ser Cys Arg Asn Leu Val Tyr Asp Gln
Ser Pro Asn Arg Thr Gly Gly Pro Ala Ser Gly Arg Ser Ser Lys Asn
                    310
                                        315
Arg Asp Gly Glu Arg Arg Pro Ser Ser Thr Ser Val Pro Leu Gly
                                    330
                325
Asp Lys Gly Ser Val Pro Ser Asn Lys Pro Leu Ala Gly Gly Glu Asn
                               345
Pro Pro Ala Pro Gly Lys Arg His Ser Pro Pro Ala His Ser His Val
                            360
Ser Phe
    370
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<212> DNA
<213> Homo sapiens
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agetqttcct tqcactacat ccacccttac caacccaatg agtatctgaa agctttggta
gctgtggggg agatttgcca agactatgac agtgacaaaa tgttccctgc ctttgggttt
ggegecagga tacetecaga gtacaeggte teteatgaet ttgcaatcaa etttaatgaa
gacaacccag aatgtgcagg aattcaagga gttgtggaag cctatcagag ctgtcttcct
aagetecaae tetaeggtee caccaacatt geecceatea tecagaaggt tgecaagtea
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gcgtcagagg aaactaacac caaagaggca tcgcaatact tcatcctgct gatcctgaca
480
gatggtgtta tcacagacat gggcgacacc cgggaggcca ttgtccatgc ctcccacctc
cccatqtcaq tcatcatcqt gggagtaggg aacgctgact tcagtgacat gcagatgctg
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gacggt
606
<210> 2840
<211> 202
<212> PRT
<213> Homo sapiens
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Ile Met Gly Gly Cys Gln Ile Gln Phe Thr Val Ala Ile Asp Phe Ala
                                25
Ala Thr Asn Gly Asp Pro Arg Asn Ser Cys Ser Leu His Tyr Ile His
                            40
Pro Tyr Gln Pro Asn Glu Tyr Leu Lys Ala Leu Val Ala Val Gly Glu
                                          . 60
                        55
Ile Cys Gln Asp Tyr Asp Ser Asp Lys Met Phe Pro Ala Phe Gly Phe
                    70
                                        75
Gly Ala Arg Ile Pro Pro Glu Tyr Thr Val Ser His Asp Phe Ala Ile
                85
                                    90
Asn Phe Asn Glu Asp Asn Pro Glu Cys Ala Gly Ile Gln Gly Val Val
                                105
                                                    110
Glu Ala Tyr Gln Ser Cys Leu Pro Lys Leu Gln Leu Tyr Gly Pro Thr
                            120
Asn Ile Ala Pro Ile Ile Gln Lys Val Ala Lys Ser Ala Ser Glu Glu
                                            140
                        135
Thr Asn Thr Lys Glu Ala Ser Gln Tyr Phe Ile Leu Leu Ile Leu Thr
                                        155
                    150
Asp Gly Val Ile Thr Asp Met Gly Asp Thr Arg Glu Ala Ile Val His
                                   170
               165
Ala Ser His Leu Pro Met Ser Val Ile Ile Val Gly Val Gly Asn Ala
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Asp Phe Ser Asp Met Gln Met Leu Asp Gly
                            200
       195
<210> 2841
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<212> DNA
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teaccecage ecceequete tgeacceact gtgctgccca caggagtggt cetgcccatg
gaagggccag ttcaggtggc cggagctcct gagctgccct aggggactgc tgtgggtctg
180
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240		gctgcctgcg			
cactetgetg	ttcaggagca	cccacccgtg	tcctcgacca	tgagcagccc	cccagcttac
cctggcatca 360	ggateteagg	gtgecgggec	cttggagcag	aaggcagcaa	tgcagagtcc
ctggacaggc	tcctgccacc	tgtgggcact	gggcgctctc	cccggaagcg	gaccaccage
	cagageetee	cctgctgcgt	acaagcaagc	gtaccatcta	caccgccggg
	ggtacaatga	acacggcacg	caatccaaag	aggeettege	catcggcttg
600		gaagaccact			
gtgccctggg 660	tggtcttgct	gtccatggac	tccttctaca	aggtgctcca	cageeteece
720		gcagcaggaa			
780		cgacctcatc			
840		ttatgacttc			
900		catcatcttt			
960		gaagatcttt			
1020		cagtgagcgc			
1080		ctccttcgac			
1140	•	gagcggcaac			
1200		gcgtgaactc			
1260		gacgctgagc			
1320		caaggagacc			
1380		cgagcacgcg			
1440		ggactatgcg			
1500					tgtgtgcaaa
1560					gcccgagctc
1620		ggacatcagc			
1680		catgatggca			
1740		gtcgctgctc			
tatgcatttc 1800	cgcgagtgag	aatcatcacc	acggcggtgg	acaagcgggt	caatgacctt

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 egtececace accetectee tgeeteetga eccaggactg etgaatacaa agatgttaat
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 aaaaatgaaa aaaaaaaaaa aaaaa
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             20
                                 25
 Pro Pro Val Gly Thr Gly Arg Ser Pro Arg Lys Arg Thr Thr Ser Gln
                            40
 Cys Lys Ser Glu Pro Pro Leu Leu Arg Thr Ser Lys Arg Thr Ile Tyr
                        55
Thr Ala Gly Arg Pro Pro Trp Tyr Asn Glu His Gly Thr Gln Ser Lys
                    70
                                         75
Glu Ala Phe Ala Ile Gly Leu Gly Gly Gly Ser Ala Ser Gly Lys Thr
                                    90
Thr Val Ala Arg Met Ile Ile Glu Ala Leu Asp Val Pro Trp Val Val
            100
                                105
Leu Leu Ser Met Asp Ser Phe Tyr Lys Val Leu His Ser Leu Pro His
                           120
                                                125
Gln Val Leu Thr Glu Gln Gln Gln Gln Ala Ala His Asn Asn Phe
                        135
                                            140
Asn Phe Asp His Pro Asp Ala Phe Asp Phe Asp Leu Ile Ile Ser Thr
                    150
                                        155
Leu Lys Lys Leu Lys Gln Gly Lys Ser Val Lys Val Pro Ile Tyr Asp
                165
                                    170
                                                        175
Phe Thr Thr His Ser Arg Lys Lys Asp Trp Lys Thr Leu Tyr Gly Ala
            180
                                185
                                                   190
Asn Val Ile Ile Phe Glu Gly Ile Met Ala Phe Ala Asp Lys Thr Leu
                            200
                                               205
Leu Glu Leu Leu Asp Met Lys Ile Phe Val Asp Thr Asp Ser Asp Ile
                       215
Arg Leu Val Arg Arg Leu Arg Arg Asp Ile Ser Glu Arg Gly Arg Asp
                   230
                                        235
Ile Glu Gly Val Ile Lys Gln Tyr Asn Lys Phe Val Lys Pro Ser Phe
                                    250
Asp Gln Tyr Ile Gln Pro Thr Met Arg Leu Ala Asp Ile Val Val Pro
                               265
Arg Gly Ser Gly Asn Thr Val Ala Ile Asp Leu Ile Val Gln His Val
His Ser Gln Leu Glu Glu Arg Glu Leu Ser Val Arg Ala Ala Leu Ala
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295
Ser Ala His Gln Cys His Pro Leu Pro Arg Thr Leu Ser Val Leu Lys
                                        315
                    310
Ser Thr Pro Gln Val Arg Gly Met His Thr Ile Ile Arg Asp Lys Glu
                                   330
                325
Thr Ser Arg Asp Glu Phe Ile Phe Tyr Ser Lys Arg Leu Met Arg Leu
                                                    350
                                345
Leu Ile Glu His Ala Leu Ser Phe Leu Pro Phe Gln Asp Cys Val Val
                                                365
                            360
Gln Thr Pro Gln Gly Gln Asp Tyr Ala Gly Lys Cys Tyr Ala Gly Lys
                        375
Gln Ile Thr Gly Val Ser Ile Leu Arg Ala Gly Glu Thr Met Glu Pro
                                        395
Ala Leu Arg Ala Val Cys Lys Asp Val Arg Ile Gly Thr Ile Leu Ile
                405
                                    410
Gln Thr Asn Gln Leu Thr Gly Glu Pro Glu Leu His Tyr Leu Arg Leu
            420
                              425
Pro Lys Asp Ile Ser Asp Asp His Val Ile Leu Met Asp Cys Thr Val
                                                445
                            440
Ser Thr Gly Ala Ala Ala Met Met Ala Val Arg Val Leu Leu Asp His
                        455
Asp Val Pro Glu Asp Lys Ile Phe Leu Leu Ser Leu Leu Met Ala Glu
                                        475
                    470
Met Gly Val His Ser Val Ala Tyr Ala Phe Pro Arg Val Arg Ile Ile
                                    490
Thr Thr Ala Val Asp Lys Arg Val Asn Asp Leu Phe Arg Ile Ile Pro
                                505
            500
Gly Ile Gly Asn Phe Gly Asp Arg Tyr Phe Gly Thr Asp Ala Val Pro
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Asp Gly Ser Asp Glu Glu Glu Val Ala Tyr Thr Gly
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<212> DNA
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Tyr Glu Pro Arg Ser Pro Gly Tyr Glu Ser Glu Ser Ser Arg Tyr Glu
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Ser Gln Asn Thr Glu Leu Lys Thr Gln Ser Pro Glu Phe Glu Ala Gln
                            40
Ser Ser Lys Phe Gln Glu Gly Ala Glu Met Leu Leu Asn Pro Glu Glu
                        55
                                            60
Lys Ser Pro Leu Asn Ile Ser Val Gly Val His Pro Leu Asp Ser Phe
                    70
                                        75
Thr Gln Gly Phe Gly Glu Gln Pro Thr Gly Asp Leu Pro Ile Gly Pro
                                    90
Pro Phe Glu Met Pro Thr Gly Ala Leu Leu Ser Thr Pro Gln Phe Glu
                                105
Met Leu Gln Asn Pro Leu Gly Leu Thr Gly Ala Leu Arg Gly Pro Gly
                            120
                                                125
Arg Arg Gly Gly Arg Ala Arg Gly Gly Gln Gly Pro Arg Pro Asn Ile
                        135
                                            140
Cys Gly Ile Trp Gly Lys Ser Phe Gly Arg Asp Tyr Pro Asp Pro Ala
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Gln Ala Ser Thr Pro
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<210> 2845
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<212> DNA
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tcctgtggca agtgatggta aatgctgtgg caagaaagca ggttctggag gtgaagggcg
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<212> PRT
<213> Homo sapiens
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Leu Pro Cys Pro Leu Gly Ser Gly Arg Leu Trp Leu Met Pro Thr Arg
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Cys His Lys Gly Leu Ser Asp Arg Cys Ser Pro Ser Leu Pro Cys Leu
                            40
Pro His Arg Pro Ser Pro Pro Glu Pro Ala Phe Leu Pro Gln His Leu
                                            60
                        55
Pro Ser Leu Ala Thr Gly Tyr Ile Cys Val Asp Cys Leu Ser Leu His
                                        75
                    70
Gly Asn Val Arg Thr Ile Phe Val Cys Cys Gly Thr Ala Ala Leu Arg
                                    90
Ala Ala Ser Ser Thr Gln Val Ala Leu Asp Thr Asp Cys Thr Gln Gly
                                105
            100
Glu Leu Gly Leu Ile Thr Pro Leu Thr Arg Gly Glu Thr Leu Gln Leu
                            120
        115
Glu Val Thr Phe Ile Pro Leu Gln Leu Arg Pro Phe His Ser Pro Arg
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Thr His Arg Gly Ala
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